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# The Oil and Gas Journal

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# Table of Contents


Vol. 40, No. 11 — July 24, 1941


## News Developments


Gasoline Rationing and Price Controls Confront Industry ..... 11
Portland-Montreal Line First Link in Emergency Program ..... *Paul Reed* 12
Prospect of Fuel-Oil Shortage on East Coast Late in 1941 ..... *J. P. O'Donnell* 14
This Week ..... 15
Kansas Crude Output Limited by Pipe-Line Capacity ..... *Harry F. Simons* 16
Philippine Drilling to Continue With Heavy Rotary ..... *T. P. Sanders* 18
News From the State Capitals ..... 20
Editorial: The Matter of Price ..... 21
Watching Washington ..... *Henry D. Ralph* 22
International News ..... 24
District Oil Committees Hold Organization Meetings ..... 26
$70,000,000 Defense Pipe-Line Route Approved by Ickes ..... 26
Refinery Expansion ..... 27
Natural-Gas News ..... 27
Natural-Gasoline News ..... 27
Recycling News ..... 27
Contracts Are Awarded for Five More Tankers ..... 29
Stanolind to Pay $5,000,000 for Barnsdall Properties ..... 29
Deaths ..... 29
The Markets ..... 29
Programs and Meetings ..... 30
Pipe-Line Activity ..... 53


## Engineering—Operating


Finish 20 Tons of Wax Daily Without Using Sweat Pans ..... *D. A. Young* 34
Derrick-Carrying Portable Rigs Speed Drilling in California ..... *T. P. Sanders* 38
Operating Ideas ..... 43
Mechanical Rotaries Used for Drilling New Oklahoma Field ..... *Harry F. Simons* 44
Recent Developments Point to Wider Use of Casing Pumps ..... 50
Central Location for Pump-Control Switches ..... 50
Progress in Metals ..... *W. L. Nelson* 52


## Field Developments


Field Developments ..... 55
N. Louisiana, Arkansas *George Weber* 56
Oklahoma ..... *Robert Ingram* 57
California ..... *L. P. Stockman* 58
North Central Texas *R. Marne Sanford* 62
Kansas, Nebraska ..... *Robert Ingram* 64
Rocky Mountain Area .. *T. R. Ingram* 66
Illinois ..... 68
Texas Gulf Coast ..... *Neil Williams* 70
Appalachian Fields ..... 71
Indiana, Ohio, Kentucky ..... 72
Canada ..... *Victor Lauriston* 73
Among Drilling Contractors ..... 74
Permian Basin,
Panhandle ..... *R. Marne Sanford* 76
Southwest Texas ..... *F. L. Singleton* 79
Louisiana Gulf Coast .. *F. L. Singleton* 80
Mississippi ..... *George Weber* 81
Eastern Texas ..... *R. Marne Sanford* 82
Michigan ..... *Otto C. Pressprich* 83


## Markets and Prices


Crude-Oil Prices ..... 81
Group 3 Market ... *H. Stanley Norman* 86
New York Market ..... *J. P. O'Donnell* 87
A.P.I. Refinery Report ..... 87
Tank-Wagon Market ..... 88
Refinery Prices ..... 89


## Additional Features


Personal Paragraphs ..... 84
Record of Oil Securities ..... 90
Equipment News ..... 91
Classified Advertising ..... 94-95
Advertisers' Index ..... 96



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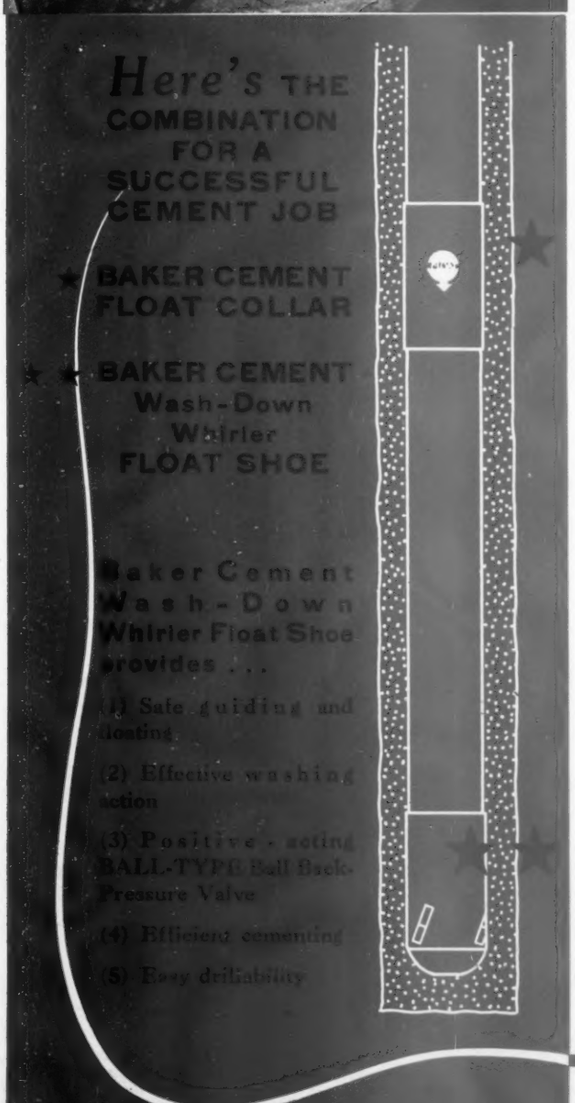
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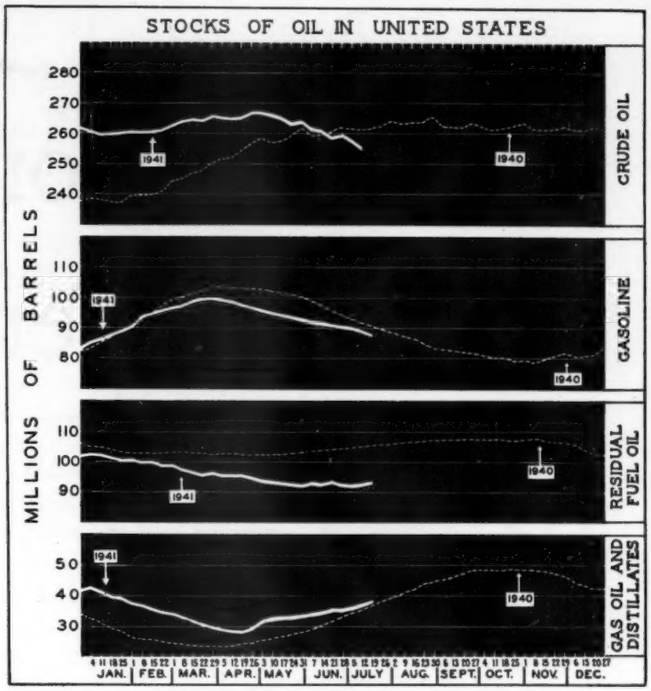
# Trends

## Gasoline Rationing And Price Controls Confront Industry




DEVELOPMENTS at Washington continue to be the subjects most widely discussed among oil operators. Within the industry conditions at this time are as favorable as they have been at any time in years. The current month is the largest in the history of the industry from the standpoint of demand and the B. of M. forecast for August points to still larger requirements with domestic production and refinery operations at the highest level in the industry's history. The August prediction does not take into consideration the possible effects of Coordinator Ickes' request that gasoline consumption in 16 eastern and southeastern states be reduced one-third, starting immediately. These states account for one-third of the total domestic motor-fuel consumption in this country. Over the remainder of the year their normal demands would be approximately 625,000 bbl. daily. If this total is reduced one-third as requested by the coordinator, it will mean that the industry will lose about 11 per cent of the total export and domestic gasoline demand so long as the domestic market restriction is in effect.

It is assumed from this action that additional tankers now in coastwise service are to be requisitioned for British use. The oil companies concerned are in agreement that this large reduction in gasoline demand cannot be brought about through the voluntary action of their customers in the 16 states. This will bring some form of compulsory rationing. It is also assumed that the restrictions will shortly include products other than gasoline. It is pointed out in this connection that the rationing of fuels presents more difficult problems than does the limitation on motor-fuel consumption. The tens of thousands of home owners in the East have no substitute for furnace oils in their home heating and the same situation applies to the use of heavy fuels by many industries. Due to this situation one Washington report states that gasoline consumers will be called upon to bear the brunt of all rationing. Such a program will bring many problems, not the least of which would be the adjustments in Gulf Coast and East Coast refining operations in order to substantially reduce present gasoline yields from crude oil.

The most important price development of the week was the O.P.A.C.S. request that Gulf Coast prices for premium-grade gasoline not exceed 6 cents at the refineries and terminals. This action was brought about through complaints from eastern jobbing interests who claimed that the margin between refinery and retail prices was too narrow. It is known that a special study is being made by O.P.A.C.S. of all phases of the industry's markets for the purpose of establishing prices for other key products.

**CRUDE PRODUCTION** *3,682,375 bbl. daily average—down 191,675 bbl. One year ago 3,576,872 bbl.*

**CRUDE STOCKS** *255,567,000 bbl. as of July 12—down 2,503,000 bbl. One year ago 261,494,000 bbl.*

**GASOLINE STOCKS** **87,920,000 bbl. as of July 19—down 1,641,000 bbl. One year ago 90,954,000 bbl.*

**RESIDUAL FUEL-OIL STOCKS** *93,091,000 bbl. as of July 19—up 392,000 bbl. One year ago 105,499,000 bbl.*

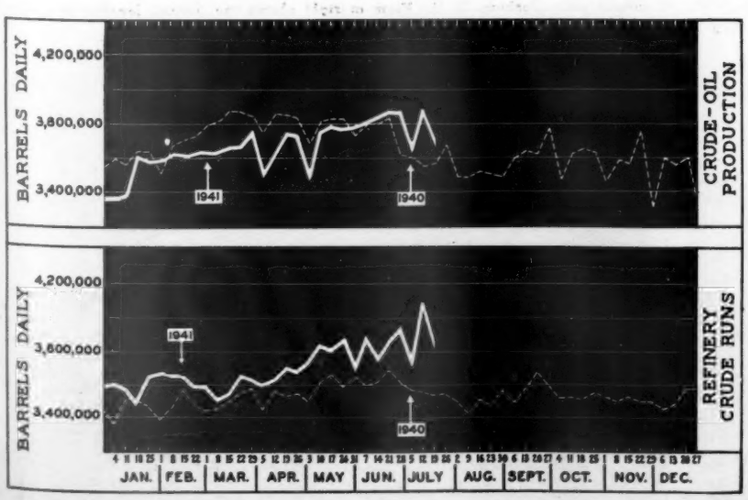
**GAS OIL AND DISTILLATES** *38,732,000 bbl. as of July 19—up 920,000 bbl. One year ago 36,968,000 bbl.*

**REFINERY RUNS** *3,805,000 bbl. daily week ended July 19—down 285,000 bbl. One year ago 3,540,000 bbl.*

*Includes 7,740,000 bbl. aviation motor fuel, up 163,000 bbl. One year ago, 5,382,000 bbl.

### *DAILY AVERAGE PRODUCTION FOR WEEK*

| | July 19, 1941 | Bur. Mines July est. of demand | July state allowables | July 12, 1941 |
|---|---|---|---|---|
| Arkansas | 73,095 | 77,000 | 73,748 | 72,330 |
| California | 640,250 | 624,800 | 601,939 | 647,250 |
| Eastern fields | 111,500 | 124,300 | ..... | 113,000 |
| Illinois | 333,470 | 384,800 | ..... | 337,405 |
| Kansas | 239,050 | 225,300 | 237,400 | 233,800 |
| Louisiana | 320,615 | 304,000 | 315,675 | 314,105 |
| *North Louisiana* | *76,120* | ..... | ..... | *74,205* |
| *Louisiana Gulf Coast* | *244,495* | ..... | ..... | *239,900* |
| Michigan | 40,530 | 37,200 | ..... | 39,630 |
| Mississippi | 47,265 | 21,000 | ..... | 42,165 |
| Nebraska | 5,880 | 4,200 | ..... | 4,925 |
| New Mexico | 108,760 | 108,600 | 108,600 | 108,750 |
| Oklahoma | 421,750 | 498,500 | 415,000 | 414,100 |
| Rocky Mountain states | 108,940 | 113,400 | ..... | 109,590 |
| Texas | 1,231,270 | 1,324,000 | 1,300,749 | 1,437,000 |
| *East Texas* | *296,020* | ..... | ..... | *372,950* |
| *West Texas* | *220,415* | ..... | ..... | *265,200* |
| *North Central Texas* | *128,935* | ..... | ..... | *133,500* |
| *East Central Texas* | *80,010* | ..... | ..... | *84,300* |
| *Texas Panhandle* | *82,355* | ..... | ..... | *84,050* |
| *Texas Gulf Coast* | *342,340* | ..... | ..... | *402,150* |
| *Southwest Texas* | *81,195* | ..... | ..... | *94,850* |
| Total United States | 3,682,375 | 3,847,100 | ..... | 3,874,050 |
| Total Production, Jan. 1-July 19, 1941 | | 709,924,735 bbl. | | |
| Same period last year | | 722,857,595 bbl. | | |



# Portland-Montreal Line First Link in Emergency Program

**Mr. Reed, associate editor of The Oil and Gas Journal, who has covered a large part of the United States in reporting on the industry's pipe-line activities, has just returned from a tour of the New England and midwestern states, now the scene of major pipe-line construction. In this report, Mr. Reed gives a first-hand account of the Portland-Montreal line, which is the first pipe line designed to aid in the nation's defense effort and the first crude-oil line to be built in the New England states. In later issues, he will report on other developments which are making this the most active pipe-line year in the history of the petroleum and natural-gas industries.**

**By PAUL REED**

PORTLAND, Me., July 22.—The first pipe-line project to relieve exigencies of the defense emergency is the 236-mile, 12¾-in. crude-oil trunk system which is now under construction between Portland, Me., and Montreal, Que. The portion of the line in the United States is being laid by Portland Pipe Line Co. The Canadian section will be built by Montreal Pipe Line Co., Ltd. Both of these companies are subsidiaries of Standard Oil Co. (New Jersey).

The project is a private enterprise which is recognized by the United States and Canadian governments as an important war measure. In this undertaking about $8,000,000 will be spent to provide facilities for transporting 50,000 bbl. of oil daily overland to supply Montreal refineries.

The new line will reduce tanker voyages to Montreal 2,000 miles by eliminating the long run around Nova Scotia. By saving 10 to 12 days of tanker time, several tankers will be freed for service between Gulf Coast and eastern-seaboard ports.

In addition to being the first line to get under way in the gigantic pipe-line developments contemplated since 50 tankers were shifted to British service, this project also has the distinction of being the first major pipe line to cross the international boundary of the United States.

Engineering and supervision of construction is in the hands of H. M. Stevenson, who is assisted by George Lee. R. J. O'Connell is chief clerk at the Lancaster, N. H., office.

Laying of pipe for the 155-mile section from Gorham, N. H., to Montreal and the construction of all of the eight pumping stations is handled by Williams Brothers Corp., Tulsa. H. L. Davis is in active charge of Williams Brothers' work under the general supervision of G. S. Conners. The 80-mile section from Gorham, N. H., to Portland, Me., is handled by Oklahoma Contracting Co. (Thomas R. Jones), Dallas, Tex., whose work is superintended by T. A. Hester. Aerial surveys for the right-of-way in the United States were made by Edgar Tobin Aerial Surveys, San Antonio, Tex. Because of legal restrictions, it has been necessary to make all surveys on the ground in Canada.

Construction of the line is a novel spectacle for New England which has never had a crude-oil pipe-line system. With the arrival of pipe-line organizations from Texas and Oklahoma, it was observed that the project would not be in the hands of well-known local contracting firms. However, after work got under way in the White Mountains of New Hampshire it was not hard to see why the line was to be built by men experienced in the rapid and efficient pipe-line construction methods which have been developed in the Southwest.

The excitement stirred up by arrival of ditchers, back hoes, rooters, tractors, angle dozers, and welding equipment in the White Mountains grew from day to day. Farmers drove in from the hills in the evening to look at this equipment lined up with military precision outside the Boston & Maine Railroad station at Lancaster, N. H., which Williams Brothers Corp. took over entirely for headquarters and warehouse.

## New Englanders Skeptical

Until the work was actually under way some of the local construction men were frankly skeptical toward these breezy fellows from the Southwest who were undertaking what had never been done in those rock-ribbed mountains. Some of the operators had high-heeled boots and cowboy hats. Since these men had no experience in the unusual mountain conditions of New England, one local contractor insisted that it would be only common sense to subcontract to him. It looked like a good 2 years' job. After seeing what was accomplished in the first few days of work at the point near Gorham, N. H., from which Oklahoma Contracting Co. started south to Portland and Williams Brothers Corp. went north toward Montreal, this local contractor came in to confess that he now understood why the project was scheduled for completion October 1. He offered to go to work for Williams Brothers and bring all his men with him.

The area between Gorham and Lancaster, N. H., where most of the line is being laid now, is 12 miles northeast of Mount Washington. It is familiar to tourists who visit such White Mountain

*Angle dozer of Williams Brothers Corp. clearing right-of-way in "notch" of White Mountains near Gorham, N. H. View at right shows the ground leveled by angle dozer for tractors, trucks and welding equipment which follow for construction of pipe lines*

points in the vicinity as Bretton Woods, Crawford Notch, Old Man of the Mountains, and Whitefield. The right-of-way skirts Mount Adams at the north end of the Presidential Range. The line has been planned so that it winds through this mountainous region by following "notches" which are the New Hampshire equivalent of "gaps" in the South and "passes" in the West.

Although the purpose is to follow the low places, these so-called low places in the notches are very rough going. In fact they are the roughest going that has been encountered in any major project in this country. The ground in the notches consists of glacial debris which contains boulders much larger than those found in glacial deposits in New York and the middle western states. The reason is that many of these have been brought down by glaciers from the nearby mountains of granite and metamorphic rock. The bed rock being unweathered is the hardest to be found anywhere. In clearing right-of-way and digging ditch, boulders larger than an office desk are constantly being moved. Special methods are being developed to deal with difficulties of this situation.

The whole area traversed by the line southeast of Canrobert, Que., is characterized by intense folding of igneous and metamorphic rock which is most pronounced in the White Mountains and continues through the lake country of Maine, famous for its fishing, and thence on to the seacoast. Portland, where a marine terminal for the line is to be constructed, has a practically ice-free harbor.

### Line Will Cross Mountains

Near Lancaster, the line will cross the Connecticut River and pass through the granite range of the Green Mountains on the side of Mount Burke. In Canada, beyond Canrobert, the line crosses gently rolling and plains country of alluvial marine deposits laid down in postglacial period over glacial drift.

The Canadian section of the line traverses country which has a predominantly French population. English is spoken but French is the prevailing language. The entire country between Portland and Montreal has been settled for a long time and there are numerous towns along the route near the pipe line.

Besides the Connecticut River there are two important river crossings at the Richelieu River and the St. Lawrence River at Montreal; plans call for dredging both of these river crossings. It is necessary to lay pipe at sufficient depth at the St. Lawrence crossing to provide safety in case the ship channel should be deepened below the present 35-ft. depth.

Pipe deliveries are scheduled to arrive in New Hampshire at the rate of 1¾ miles per day which must be divided between the two contractors. At present Williams Brothers Corp. has one gang working north from Gorham as well as a gang working southeast from Newport, Vt., in addition to four gangs building pump stations. Early in August, Williams Brothers Corp. plans to bring a gang from Des Moines, Iowa, to work northwest from Newport, Vt. Oklahoma Contracting Co. has one gang working southeast from Gorham, N. H., where this firm has established headquarters.

Specifications call for ditch with a minimum width at the bottom of 24-in. There will be 3 ft. of cover over the pipe. Because of the cavey nature of much of the ground, a large part of the ditch is wider.

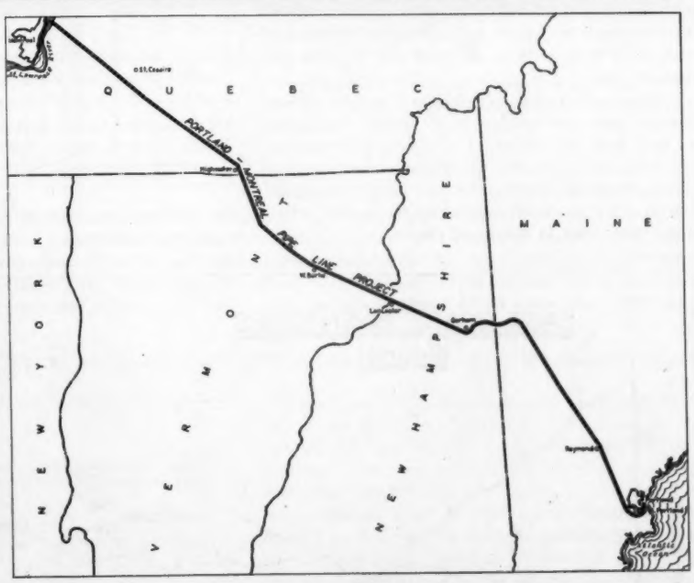
Pipe used in the construction of the line is 12¾-in. o.d. diameter, 49 lb. per ft., ⅜-in. wall thickness, and is in 40-ft. random lengths. It is Grade B, A.P.I. seamless, except for 45 miles in Canada where electric-welded pipe will be used. Welding is done with rods of the following sizes: First and second beads 5/32 in.; third bead, 3/16-in. rod. Specifications call for soap-testing the welds during the course of construction, and for testing the completed line with 1,000-lb. water pressure. However, if oil is available soon after completion for filling the line, it will be used for testing. During construction, sections of the line completed each day are blown with a swab to clean and they are tested with 100-lb. air pressure.

The principal river crossings will be made in the following manner: Richelieu River crossing is ½ mile long; the crossing will be made with two 10-in. lines. The St. Lawrence River crossing is 2½ miles long. The pipe will traverse an island in the middle of the river for the distance of nearly a mile. There are 45 highway and railroad crossings and 18 stream crossings.

Pump-station equipment has been selected to meet the conditions presented in the transportation of Gulf Coast and South American crudes through a line of this kind. Each of the eight pumping stations will be equipped with two horizontal triplex reciprocating pumps. The five stations on the southern part of the line and one station in Canada will have pumps driven by purchased electric power. Each pump will be driven by a 500-hp. synchronous electric motor. These stations are to be located at South Portland, Me., Raymond, Me., North Waterford, Me., Gorham, N. H., Lancaster, N. H., and St. Cezaire, Que. Two stations on the northern part of the line at West Burke, Vt., and Highwater, Que., will be diesel powered. Each pump will be driven by a 600-hp. diesel engine. A 30,000-bbl. tank will be installed at each station. The South Portland terminal will have six 140,000-bbl. tanks.

The Portland-Montreal pipe line will not only reduce tanker voyages by 2,000 miles, but it will also provide means for making continuous deliveries during winter months when ice in the St. Lawrence River is an obstacle to navigation. An article will appear in a later issue describing some of the construction details of this project.

*Above: Lancaster, N. H., railroad station was taken over by Williams Brothers Corp. for headquarters and warehouse. Pipe in foreground is casing for road crossings*




*Right: Route of Portland-Montreal crude-oil line which crosses the White Mountains 12 miles northeast of Mount Washington and the Green Mountains near Mount Burke*

*Below: Back hoe of Oklahoma Contracting Co. (Thomas R. Jones) digging ditch north of Mt. Adams where right-of-way traverses glacial moraine where boulders make rough going*

# Prospect of Fuel-Oil Shortage On East Coast Late in 1941

**So far the industry has been able to maintain adequate stocks of crude oil, motor fuel and fuel oil in affected area, but concern is felt for the last quarter of this year and early months of 1942**

By J. P. O'DONNELL

NEW YORK, July 22.—Ability of the oil industry to not only maintain but to increase combined stocks of crude oil, motor fuel and fuel oil on the East Coast during the second quarter when one-fifth of the Gulf Coast-North Atlantic tanker fleet was withdrawn from coastwise service indicates that it also will be able to meet the requirements of the third quarter, a period in which over-all demand approximates that of the second quarter, without difficulty. However, there is real cause for concern during the final quarter of 1941 and the first quarter of 1942 when demand for all products will be 25 per cent higher. If further tanker requisitions are required, any doubt of the impossibility of meeting demand will be removed.

The record of the industry in the second quarter and indications of what will happen in the third cannot be taken as a reliable forecast of what it will be able to do later for at least two reasons:

1. The withdrawal of 500,000 tons of tanker tonnage was done progressively during the period so that the full effect of withdrawals was not felt for a full quarter. Remedial measures were taken similarly so that the full extent to which the industry has been able to make up the deficit is not indicated in available statistics.

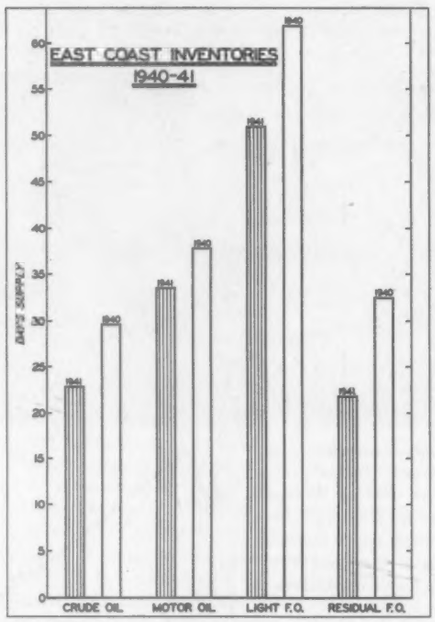



*Fig. 2—Days' supply of all products lag behind East Coast levels of 1940*

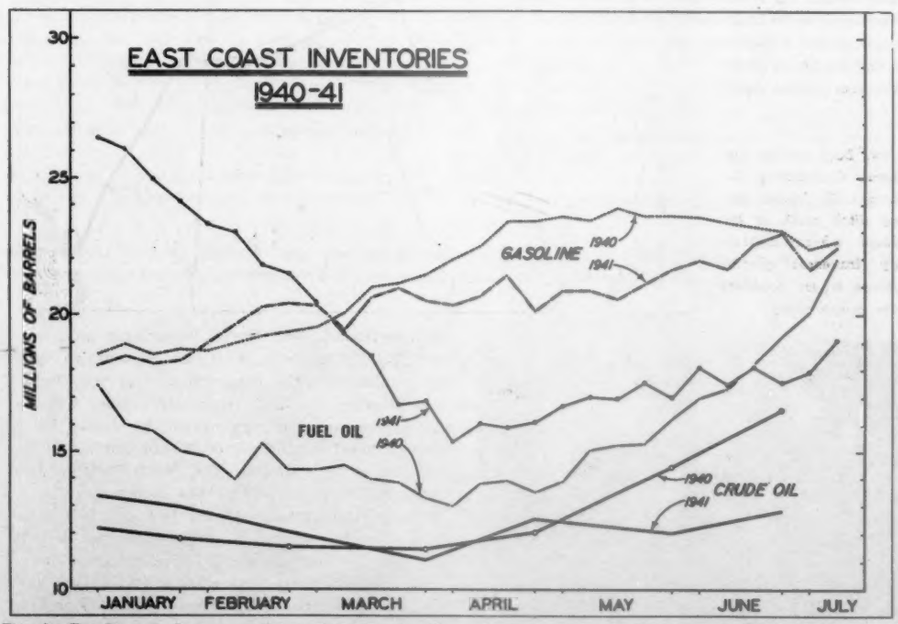



*Fig. 1—Gasoline stocks are maintained fairly near last year's level but fuel oils and crude charts reveal threat of shortage*

2. The second and third quarters of the year constitute the season of lowest demand for all oil products and normally this period is used to build up East Coast stocks. In the late summer of 1940, a score of tankers were laid up and still stocks of fuel oil rose, an indication of the low ebb demand reaches at this time.

### Storage Additions Below Normal

Some observers view the industry's ability to more than meet the demands of the second quarter as encouraging. However, additions to East Coast stocks in that quarter were only about 3,700,000 bbl. compared to 12,700,000 bbl. in the like quarter of 1940. In view of the absolute necessity of building up inventories in the off season, this volume of increase is threateningly small. This is particularly so in view of the fact that in the winter of 1940-41 it was necessary to withdraw 19,622,000 bbl. from East Coast stocks to meet the demands of that period.

Another consideration is that the demand this winter will be much higher than it was a year ago. East Coast demand for all poducts in the 6 months fom October 1941 to March 1942 is expected to approximate 308,350,000 bbl. against 286,020,000 bbl. last winter. This increase of approximately 8 per cent totals 22,330,000 bbl. Therefor the industry's problem is to meet an 8 per cent increase in demand with normal transportation facilities reduced 20 per cent. Because of these two factors, the East Coast is faced with a shortage of, roughly, 70,000,000 bbl. for the coming winter. This is 23 per cent of the anticipated demand.

In a direct comparison with the same time a year ago, East Coast stocks of the major refined products were 8 per cent lower on July 12 this year. The relationship between stocks of motor fuel and fuel oil to the end of the second week in July for 1940 and 1941 is shown in Fig. 1 as well as the relationship between stocks of crude oil to the end of June. This figure shows that the stocks of gasoline have been maintained very close to last year's level but that there is a widening in the margin of decline for both fuel oil and crude oil.

### Stock Differences Give Clue

Differences between stocks this year and last year are shown more accurately in Fig. 2 in which they are represented on the basis of days' supply. Actual demand for the third quarter of 1940 and anticipated demand for the third quarte of 1941, reduced to daily averages, were used to compute days' supply. This comparison takes into consideration the important factor of demand and reveals a strong contrast with conditions as they existed a year ago. On this basis, at the end of the second week in July last year, gasoline stocks were 13 per cent greater than at the same time this year, light fuel-oil stocks were 21 per cent greater, heavy fuel-oil stocks were 50 per cent greater. East Coast crude-oil stocks, on the same basis, were 29 per cent greater on June 30, 1940, than on June 28, 1941. A detailed comparison on this basis follows (in thousands of barrels):

# This Week...

## STRICTLY NECESSARY CONSUMPTION . . .

*THIS VIEW OF WORKERS DRIVING TO THEIR JOBS AT THE STEARMAN DIVISION OF BOEING AIRPLANE CO., WICHITA, KANS., IS SYMBOLIC OF THE DEFENSE PROGRAM'S PART IN RAISING GASOLINE CONSUMPTION MORE THAN 12 PER CENT ABOVE LAST YEAR'S REQUIREMENTS*

The Government is giving consideration to a suggestion that cigar-shaped tanks could be towed behind any or all vessels plying coastwise waters and relieve the East Coast supply situation.

●

District oil coordinating committees are being organized this week. Later, when all committees report ready for service, chairmen expect a call to Washington for discussion of program details with Coordinator Ickes.

●

Final passage of the Cole pipe-line bill now clears the way for construction of the defense arteries to the East Coast. Speed in building will determine scope and extent of East Coast shortage of supplies. The House version was finally accepted by the Senate.

●

Evidence is contained in dispatches from Washington that Coordinator Ickes is not in full sympathy with plans for turning over another large bloc of tankers to Great Britain. It may be, he has said, that the British cause can be best served by keeping United States industry in high gear.

●

A reduction of 50 per cent in the production of 1942 model automobiles will not affect this year's consumption of motor fuel. Starting next year, however, and continuing until normal output is resumed, the new cars will just about equal those usually junked in each recent year.

●

Kansas operators have been preparing to supply the larger demand that will accrue to that state from a link with the eastern defense crude line. Completions so far this year total 1,094 against 967 for the same time in 1940.

Barge shipments of petroleum to Mississippi River ports from Louisiana and Texas increased 20 per cent in June, according to figures released this week. June movement averaged 52,495 bbl. daily.

●

A shortage of perhaps 70,000,000 bbl. is in prospect for East Coast supplies of all petroleum products during the final quarter of this year and the first 3 months of 1942.

●

Soon, the industry may be denied information on tanker diversions. Coordinator Ickes thinks these data now fall in the category of military secrets.

●

Domestic demand for motor fuel next month has been estimated by the Bureau of Mines at 62,500,000 bbl., 13 per cent higher than the actual a year ago.

●

The base price of premium gasoline at Gulf Coast refineries has been pegged at 6 cents. Heretofore, the O.P.A.C.S. has concentrated price control efforts on crude and the tank-wagon markets.

●

Route approved by Coordinator Ickes July 22 for the defense crude pipe line is that running from East Texas to Illinois with a link to the Sinclair system at Wood River and then east to New York and Philadelphia. Map and story on Page 15, July 17, The Oil and Gas Journal, give the details.

●

A reduction of nearly 75 per cent in the rail freight rate on petroleum from Toledo and Lima, Ohio, to Montreal, Canada, has been asked by Imperial Oil, Ltd.

●

Department of Justice has asked defendants in the antitrust suit for a full breakdown of advertising expenditures.

●

Diversion of more tankers to British service, regarded only as a possibility a few weeks ago, is now imminent, according to Washington reports. Fifty more domestic tankers is the total most often mentioned, along with possibly 35 Norwegian boats operating under charter to United States companies. They may be taken at the rate of 10 a month.

**PRODUCT STOCKS AND DAILY DEMAND**

| | Crude oil | Motor fuel | Light fuel oil | Residual fuel oil |
|---|---|---|---|---|
| 1941— | | | | |
| Stocks | 12,790 | 22,364 | 10,835 | 8,262 |
| Daily demand | 561 | 668.5 | 213 | 390 |
| Days' supply | 22.8 | 33.5 | 50.9 | 21.7 |
| 1940— | | | | |
| Stocks | 16,624 | 22,671 | 11,775 | 10,770 |
| Daily demand | 561 | 599.5 | 190.7 | 331 |
| Days' supply | 29.6 | 37.8 | 50.9 | 32.5 |
| Drop in days' supply | 6.8 | 4.3 | 10.8 | 10.8 |
| 1940 margin (per cent) | 29 | 13 | 21 | 50 |

The most unfavorable indication in recent statistical reports is the widening margin between stocks of crude oil and fuel oil when compared with 1940. Stocks of crude oil on June 28, 1941, were 12,790,000 bbl. against 16,624,000 bbl. on June 30, 1940, lower by 3,834,000 bbl. This developed entirely in May and June as on April 30, as is shown in Fig. 1, crude-oil stocks were actually 88,000 bbl. higher than last year. The same is true of fuel oil. As late as June 14, combined stocks of light and heavy fuel oil were 218,000 bbl. higher than last year but on July 12 they were 2,953,000 bbl. less than a year ago.

The trend in fuel-oil stocks will be watched closely in the remainder of this quarter for no actual shortage is indicated until the fuel-oil season begins. So far additions to stocks have been lower than desirable. From March 29 to July 12, light fuel-oil stocks increased 2,629,000 bbl. while heavy fuel-oil inventories fell 403,000 bbl. In the same period a year ago light fuel-oil stocks increased 6,148,000 bbl. and heavy fuel oil 2,581,000 bbl.

From March 30 to September 28, 1940, light fuel-oil stocks rose 12,529,000 bbl., an average of 482,000 bbl. per week. In contrast, the rate of increase since the end of March this year has been but 175,000 bbl. per week. To attain the same storage level at the end of September as existed a year ago, it will be necessary to step up the rate of additions to 665,000 bbl. per week, almost four times the rate so far. In the same 6 months last year heavy fuel-oil stocks rose 5,123,000 bbl., an average of 200,000 bbl. per week. In contrast, these stocks have been declining at the rate of 27,000 bbl. per week since the end of March.

This brief review of statistics makes it apparent that substitute transportation methods employed up to July 12 have not been sufficient to offset the effect of both the loss in tankers and the increase in demand and at the same time to maintain inventory levels comparable with those of a year ago. A continuance of the trend of the past few weeks will find stocks, particularly those of fuel oil, at very low levels when the season of heaviest consumption arrives.

# Kansas Crude Output Limited By Pipe-Line Capacity

By HARRY F. SIMONS

**Kansas is faced with a steadily increasing demand after battling a declining market for almost 4 years. It has speeded up the tempo in the state with 1,094 completions reported so far this year against 967 in the same period in 1940. Present difficulty is to get more than 250,000 bbl. of crude oil daily to refineries in and out of the state.**

WICHITA, Kans., July 21.—Kansas, like a young ball team, has been promising spectacular performance for the past 5 years but each time it appeared to be on the verge of coming up to expectations, something went wrong. This year, it really looks like the state has arrived, mostly because of happenings elsewhere in the nation, including a decline from last year's peak in Illinois output, readjustment of the price structure to place Kansas in a better competitive position, the increased demand owing to the defense preparations and finally the readjustments in the movement of crude-oil products due to the requisitioning of tankers. Add them all up and they assure better times for Kansas if the pipe-line capacity can be provided to handle the oil.

The state's production is controlled rigidly to conform to the market demand as set forth in the monthly hearings of the Corporation Commission and the increase in the market is as accurate a barometer as the weekly output. In fact it is more so as the production from week to week is likely to fluctuate. A glance at the accompanying graphs shows that since January 1, 1941, the state's allowable has increased almost 45,000 bbl. daily. Production has kept pace as purchasers have been anxious to get the oil.

More important is the fact that the bulk of the increase has been in the prorated areas. The state grants all wells a minimum of 15 bbl. daily and then prorates the remaining potential. The number of unprorated wells increased from 14,056 on January 1 to 14,618 on July 1. The increase was due mainly to the Wellington and Ritz pools being dropped from the prorated list because the average production per well for each of those fields was less than 15 bbl. Allowable granted to unprorated fields jumped from 42,496 bbl. to 53,515 bbl. daily in the same 6 months. Wells in the prorated fields jumped from 6,617 to 6,650 during the time the allowable was rising from 151,504 to 183,885 bbl., a gain of 32,381 bbl.

In January the allowable granted to the average prorated well in Kansas was less than 23 bbl. while in July it was more than 29 bbl., an increase of 6 bbl. per well daily. This, coupled with a price increase from $1.10 to $1.25 per barrel, put considerable cash in the pockets of the Kansas producer, both major and independent, and generally loosened the purse strings for wildcat drilling and other exploration. It did for Kansas what every other measure attempted in the past 5 years had failed to do. It might be added that most of these measures were designed to keep the Kansas oil business alive until more prosperous times arrived.

The fact that Kansas operators have been able to step up production to meet the demand is due to the proration which has been in force and the refusal of the operators to waste the oil on a depressed market. Ability of Kansas to produce is a very perplexing question and no one will admit to knowing the answer. The potential of the state is placed at 7,643,076 bbl. which means exactly nothing as it is merely a basis of comparison between wells and pools on which the allowable production is granted.

### Productive Capacity of State

Estimates of the state's productive capacity varies from a pessimistic 300,000 to the optimistic 600,000 bbl. with 400,000 bbl. daily over any considerable time without waste being the figure most generally heard. This estimate is based on an average of 60 bbl. being allotted to 5,800 of the prorated wells, 10 bbl. per well for each of the 580 minimum wells in the prorated fields now making little more than 15 bbl. per day and 53,515 bbl. to the more than 14,000 wells in unprorated fields. This makes a total of 410,015 bbl.

Sustaining this production would be the completions of new wells in present fields and pools yet to be discovered. On an average there are 160 new wells completed monthly in Kansas and 32 of these can be credited to the minimum classification, leaving 128 prorated wells capable of producing the allowed 60 bbl. each. This makes a total of 8,000 bbl. added to production each month to offset the decline. Actually, with the demand for more oil and, given the equipment necessary

*Above: Magnolia Pipe Line Co. station using internal-combustion engines at Chase, Kans. An electric station belonging to the Kaw Pipe Line Co. is just north of the one shown in the picture*

*Below: New Viola lime well about 5 miles northeast of the Zenith pool adds interest to the Stafford County area. The well was flowing through a choke when the picture was taken*

to put the wells on production, the completion rate could be stepped up considerably so that the finding of 8,000 bbl. of production monthly would be comparatively easy.

The oil productive territory in Kansas is constantly expanding. Last week, a new pool was opened in Kearny County, southwestern Kansas by Stanolind 1 Patterson, E½ SE 23-22s-38w. Saturation was found in the Cherokee formation. The well is in the Dodge City basin. Nearest previous oil production is in the Nunn pool in 27-21s-34w, about 25 miles away. Another important new strike was in Reno County where Simpson Oil Co. completed a good well in the Viola lime in the 1 Snowbarger, SW SE NE 21-23-10w. The well was making 12 to 13 bbl. per hour through ¼-in. choke with 85 lb. flowing pressure and 95 lb. shut-in pressure. Coupled with the recent development in Graham, Rooks and Phillips counties, and the numerous other discoveries made this year, there is plenty to keep Kansas operators busy.

Development of more pay horizons in known areas is as important as the discovery of new fields and new areas. In the past few years, it has been found that the race to the Arbuckle lime left many zones untested which were later found to be productive. The Viola lime development in the Zenith field in Stafford County brought this forcibly to the minds of the operators. There are numerous fields in the state capable of production in two to four formations.

Just how these will be developed is still a problem as the Corporation Commission has not ruled on the matter of producing two zones through one well bore. In cases where the production will justify it, new wells may be drilled and where the wells are too light to warrant the investment, exploitation will be delayed until the better pay zone is exhausted.

### Short of Pipe Lines

Regardless of what the state's possibility productive capacity may be, it is certain that it has not reached its peak. Purchasers have increased their requests for oil and these requests have been met. Companies increasing their purchases can be found in the accompanying table which compares nominations in January with the nominations in July.

| Purchaser— | January nomination | July nomination |
|---|---|---|
| Atlantic | 1,660 | 1,597 |
| Bareco | 960 | 920 |
| Bay | 2,000 | 1,000 |
| Champlin | 200 | 200 |
| Cities Service | 14,700 | 18,500 |
| Continental | 20,000 | 27,000 |
| Coop. P. L. Association | 2,581 | 3,000 |
| Derby | 6,500 | 4,500 |
| El Dorado | 715 | 715 |
| Falcon | 1,345 | 1,800 |
| Globe | 2,500 | 5,500 |
| H. & T. Reclaiming | 500 | 1,500 |
| Kanotex | 2,800 | 4,700 |
| National | 2,300 | 2,300 |
| Petrodeum Prod. | 1,650 | 1,750 |
| Phillips Petroleum | 14,300 | 18,000 |
| Shell | 9,500 | 10,500 |
| Sinclair-Prairie | 15,000 | 20,000 |
| Skelly | 16,000 | 28,000 |
| Stanolind | 30,000 | 45,000 |
| Texas | 8,500 | 15,500 |
| Vickers | 2,250 | 3,500 |
| White Eagle | 25,000 | 33,000 |
| Miscellaneous | 2,600 | 2,840 |
| Total | 183,561 | 251,332 |

Most of the oil moves either southeastward through Kansas or northward to the large lines starting in Wyoming and terminating at Chicago and St. Louis, Mo. Exceptions are the local trucking to pipe-line stations, local rail shipments and the hauling of oil from the northwest part of the state to the Shallow Water refinery. There are no wells in the state lacking some form of market for their oil.

Once the oil has reached Valley Center, Kans., it is comparatively easy to get it to refineries both in and out of the state. However, between Susank and Valley Center the facilities are limited although they are being expanded at the present time. Kaw Pipe Line Co. (White Eagle, Texas, Cities Service and Phillips) is looping its 37 miles of 8-in. line with 10-in. from Susank into Chase and White Eagle is looping its 23½ miles of 8-in. line with 10-in. from Chase to Wherry. This will add approximately 30,000 bbl. to the 40,000 bbl. now delivered at Valley Center for shipment through lines owned by Texas-Empire Pipe Line Co., White Eagle Refining Co., Sinclair Prairie Pipe Line Co., Stanolind Pipe Line Co., Continental Pipe Line Co., Derby Pipe Line Co. and Skelly Pipe Line Co.

Stanolind Pipe Line Co. will put four 10-in. loops on its line from Washington, Kans., to Freeman, Neb. The capacity of the line will be increased from 30,000 to 45,000 bbl. daily. A capacity of 40,000 bbl. into Washington is available through present facilities. Contract for the work is being let and the pipe is already being shipped with completed delivery scheduled before August 31.

Skelly Oil Co. is laying a 6-in. line from Bloomer to the Prussa, Trapp, Coralena and Hall-Guerney fields but this oil will have to move southward through the congested area. Stanolind has a proposed line from Raymond in Rice County west to Pawnee Rock and north to the Otis field and Kaw Pipe Line Co. has proposed an extension from Bemis in Ellis County to the Ray pool in Phillips County.

Pipe-line capacity out of the state is also about to be increased. Stanolind Pipe Line Co. is considering the installation of stations on its line northwestward out of Bemis and Texas-Empire may increase its facilities between Valley Center and Shelton, Mo.

No new refineries have been built recently but several have been expanded. Improvements at the Skelly plant at El Dorado and the White Eagle refinery at Augusta added 15,000 bbl. to the daily refining capacity of the state which is now 176,100 bbl. daily.

Gas developments in the state have also been encouraging with a new discovery north of Otis and the reserve of sour gas in the Arbuckle lime at Cunningham. The market has been rising steadily and is expected to be about 87,000,000,000 cu. ft. in 1941 and may be more if the winter is severe. This is a jump of 2,000,000,000 cu. ft., which is about the average increase for the last 3 years. Production of 100,000,000,000 cu. ft. is forecast for 1946. Present average price is 3 cents per 1,000 cu. ft.

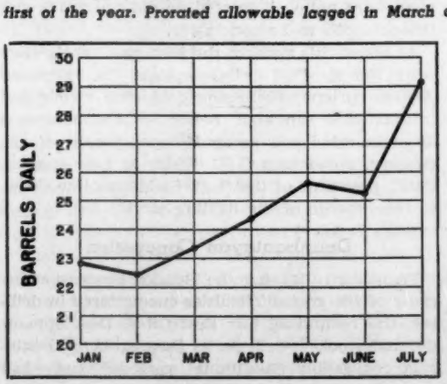
Gas produuction in the state has been rigidly supervised and no gas can be produced unless it serves a market. This includes gas produced with oil, which must be either sold or returned to the pay sand. The Cunningham pool has been repressured for several years and two plants are now in operation in the Otis field and a third, which will also recover gasoline, is being built.

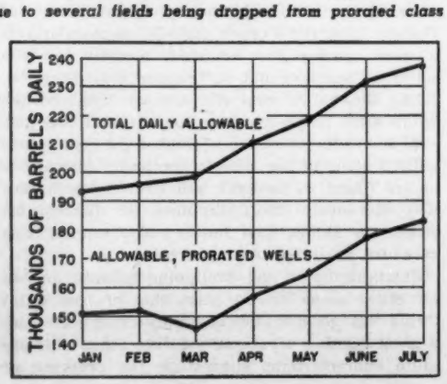
Taking everything into consideration, it looks like the busiest year for all departments in the history of the Kansas oil industry.

## NEXT WEEK . . .

- **Are we finding more oil than we are consuming?**
- **How do markets compare with previous years and what is in prospect for the remainder of the year?**
- **These are some of the questions answered in next week's Semiannual Review and Outlook Number.**
- **The July 31 issue will be one of the most valuable numbers of this outstanding year for Journal readers. It will review the accomplishments of the past 6 months in which many of the industry's records were broken. With these data as a basis all phases of operations for the remainder of the year will be projected. Special attention will be given to the significance of developments at Washington in relation to the industry's future operations.**
- **This special number includes the industry's only complete statistical report for the midyear.**

***Below (left): Most important figure to the Kansas producer is the per well allowable which has risen from 22.5 bbl. in February to over 29 bbl. in July. Below (right): Rise in Kansas production has been steady since the first of the year. Prorated allowable lagged in March due to several fields being dropped from prorated class***



# Philippine Drilling to Continue With Heavy Rotary

By T. P. SANDERS

SOME 6 years ago a group of capitalists in Manila organized the Far East Oil & Development Co., obtaining from the Philippine Government two concessions which had perhaps the most promising outlook for prospective oil production to be found anywhere in the 7,091 islands of the Philippine Archipelago. One of the concessions is the Bondoc Peninsula, a southern extremity of the Island of Luzon on which Manila is located; the other is the Daanbantayan Peninsula at the northern tip of Cebu, an island famous for its open-pit iron mines. These two peninsulas now make up the only prospective oil lands under private control in the entire Philippine Islands.

Encouraged by officials of the Philippine Government who recognized the economic and military advantages that an oil discovery would bring to the islands, the Far East Oil & Development Co. embarked on its exploration program 5 years ago. Although commercial production has not been found to date, the company has learned how to overcome the difficult local drilling conditions and prospects for obtaining production ultimately have not been dampened.

*Left: Modern camp construction carried on by Far East Oil & Development Co. at their Daanbantayan Peninsula concession*

*Below: O. C. Field, president of O. C. Field Gasoline Corp., (right) has been placed in charge of drilling for Far East Oil & Development Co. A. E. Ireland (left), now in Philippines, is drilling superintendent*

### Geology Comparable to East Indies

Geologically the Philippine Islands are comparable in many respects to the nearby Dutch East Indies where prolific oil fields have been discovered. The South China Sea, which separates both the Philippines and the Island of Borneo from the French Indo-China mainland, is a great geosyncline bounded, roughly, on the south by Sumatra and on the north by Formosa. Being situated in somewhat the same relative position with respect to the South China Sea geosyncline to the west, the islands of the Philippines exhibit some of the same outcropping formations as are found in Sarawak and British North Borneo. Moreover, the Philippines lie directly between the Dutch East Indies and Formosa, both of which are oil-producing areas.

Stratigraphy in the Philippine Islands, and in all other areas on the east side of the South China Sea geosyncline, is highly complicated by a great number of unconformities. Steep dips are quite characteristic, suggesting the presence of many major and secondary anticlines and basins imposed upon the rim of the great geosyncline.

### Bondoc Peninsula

The first drilling undertaken by Far East Oil & Development Co. was on the Bondoc Peninsula. Here oil seeps had been found and it was believed that production could be obtained at shallower depths than would be possible on the Daanbantayan concession. Drilling proved exceptionally difficult because of constant caving of a body of bentonitic shale at about 1,000 ft. in depth. Cable tools first gave promise of being the most economical method for drilling in this remote area where time was not the main object, but it was found impossible to penetrate the bentonitic formation with percussion tools. Even after cable tools had been replaced by rotary tools the test had to be abandoned before depths greater than 1,000 ft. were reached. In all, five attempts were made by the Far East company on Bondoc Peninsula, all resulting in endless trouble and ultimate abandonment.

Richmond Oil Co., an exploration subsidiary of Standard Oil Co. of California, drilled some tests on the Island of Luzon at Bondoc about 18 years ago, but due to the limited accumulation of geologic knowledge of the region and the equipment limitations of the time, it is believed that these tests were not well located or did not reach sufficient depth to be conclusive.

At about this time in the history of their company, Far East Oil & Development Co. interested Andres Soriano, Philippine gold-mine owner and international capitalist. Senor Soriano became a large investor and accepted management of the concern, appointing O. C. Field, of Los Angeles, Calif., president of the O. C. Field Gasoline Corp., to take charge of the drilling work.

### Daanbantayan Concession

Temporarily leaving the Bondoc concession because of the great difficulties encountered in drilling, the revitalized Far East Oil & Development Co. undertook to drill on its Daanbantayan Peninsula concession. Additional geologic study had enhanced the outlook for production on this northern peninsula of Cebu Island.

The Daanbantayan Peninsula is 16 miles long and represents in its entirety an anticlinal structure, or dome, of textbook regularity with north-south major axis. The peninsula is joined to the mainland by a low neck, and even in this direction where the dome apparently joins onto the irregular island uplift the structural closure is 900 ft. As seen at the surface, the dome is outlined by a rim rock of limestone surrounding a core of clay. The dip of the limestone is about 16° in all directions around the dome.

There are no oil seeps on the Daanbantayan Peninsula, but just 25 miles east across the Visayan Sea on the Island of Leyte there is a tar sand which has been mined for 20 years. Many of the streets in Manila are paved with tar sand from this mine. On the west coast of the Island of Cebu itself, near Toledo, the natives have for many years bucketed oil out of small holes drilled into an oil-sand outcrop.

### Far East Well 6,010 Ft. Deep

When O. C. Field was placed in charge of drilling for Far East, he immediately organized a drilling department with A. E. Ireland, who had been his associate in California fields, as drilling

superintendent. With three California drillers Mr. Ireland headed for the Bondoc concession, where the last of the unsuccessful tests on that concession was still being drilled under great difficulty. However, before his arrival the hole was junked due to caving of the bentonitic shale. It was then decided to purchase new equipment with which to undertake drilling on the Daanbantayan Peninsula.

The drilling objective at the Daanbantayan concession has always been the Malubug shale. Surface study of the overlying strata prior to drilling indicated that this formation would be found at about 3,500 ft. Because of the shipping distance involved and the difficulty of placing the equipment at the location without usual port facilities, comparatively light equipment was purchased for the expected 3,500-ft. depth.

The original rig, which was purchased in Los Angeles, was powered by a 140-hp. V-8 diesel engine. The transmission was specially designed, and this drove a light draw works mounted on a special frame for maximum portability. Two 100-hp. diesels each drove a 6 by 10 in. mud pump.

Exceptionally good time was made in drilling to 3,500 ft. Training their crews of Visayan natives as they went along, and penetrating an entirely unfamiliar section, the drillers reached 3,500 ft. in 45 days. The Visayans proved strong and grasped the duties of rotary floor men with surprising rapidity. Each driller had his entire crew made up of native Philippine laborers.

Since the Malubug formation had not been found at 3,500 ft.; 10-in. casing was cemented at this depth to avoid the possibility of losing the hole due to caving, and drilling was continued. Although the rig had been selected for 3,500-ft. drilling, a depth of 6,010 ft. was reached before the operation was shut down to await heavier equipment.

A new rig, purchased from Sunset Oil Co. in California, is on its way to the location at the present time. This will be capable of reaching whatever depths are necessary for a conclusive test. The new rig uses two 200-hp. diesel engines which are compounded for driving the draw works and a 7½ by 18 in. mud pump. A second pump, 7¼ by 18 in., is driven independently by a 125-hp. diesel. With the new rig 14,000 ft. of 3½-in. drill pipe was shipped to the location.

### Drilling Government Well

While waiting for delivery of the new rig, the drillers and their crews were "hired out" to National Development Co., a Philippine Government corporation, to spud in a new prospective hole at Barili, which is on the same island 80 miles to the south. National Development Co. has drillers and helpers on their way to this location at present, and upon their arrival the Far East crews will return to their Daanbantayan prospect where by that time their new drilling equipment will be on the site. There is a paved road between the two drilling prospects on the Island of Cebu. This will make it possible for the two concerns to aid one another through equipment loaning and renting as is often carried on among companies drilling in the United States' fields.

*Right: Light rig used by Far East Oil & Development Co. to drill to 6,010 ft. on Island of Cebu. A heavy rig is now on seas to continue hole to greater depths*

*Below: Sunset as pictured from the drilling camp of Far East Oil & Development Co. on the Daabantayan Peninsula*

### Prospects for Future

Although drilling at Daanbantayan concession has proceeded far past the depth at which the Malubug was expected, this objective has not been reached as yet. This is explained by the fact that a maximum thickness has been encountered in all formations. The great thickness of the beds tends to confirm the opinion expressed some time ago by Grant W. Corby, chief geologist for both National Development Co. and Far East Oil & Development Co., that the sediments in the Daanbantayan area were laid down in the central portion of an old sedimentary basin. Subsequent folding raised the structure from the floor of the sedimentary basin to the position it occupies today. The dip angles found on cores taken from the hole have not tended to disprove this original conception.

Being a basin-floor deposit, it is probable that if the Malubug formation is found it will be of maximum thickness, just as the overlying formations are. The textbook structure may well exhibit a flattening with depth, but it seems unlikely that so prominent a surface structure would not exist at that depth. One of the natural conditions which has sometimes accounted for absence of oil where other conditions have been favorable is known as "water flushing." This condition is likely to be found in mountainous country. If the prospective porous formation crops out at a high elevation, it may be subjected to constant or seasonal washing action by water entering the outcrop, and this may prevent oil accumulation in the structural traps. It is probable that unconformities, faults, irregularities in sedimentation, asphaltic sealing at outcrops, or low dips would have prevented water flushing in the Cebu region, but discovery of the existence of this condition is always dependent on drilling.

It is probable that the Far East well will be drilled to great depths if necessary. This possibility is suggested by the amount of drill pipe sent to the location and also by the fact that the value of crude oil in this vicinity is about $2.50 per barrel, which would make deep production economically feasible. It is said that the Philippines have four or five sands which have oil-bearing possibilities, so if the Malubug is missed or proves barren, the operators evidently intend to seek a deeper sand.

There is a great need for a more abundant supply of fuel oil, diesel oil, and gasoline to support the economic development of the islands. But a sizable oil discovery would be of even greater importance from a military point of view. With the growing determination in the United States to defend the Philippines against any aggression, a convenient local supply of fuel for planes and naval vessels might some day obviate the stupendous task of convoying tankers a distance of 7,000 miles from the California oil-loading ports.

●

## Oil Shipments From Port Arthur, Tex., Rise

Crude oil and petroleum products shipped from Port Arthur, Tex., the loading terminal for the Texas Co. and Gulf Oil Corp. refineries on the Gulf Coast, increased in June.

Gulf company shipments, consisting entirely of refinery products, totaled 3,943,653 bbl. in June compared to 3,692,482 bbl. in May. Shipments from the Gulf terminal a year ago totaled 4,128,002 bbl. All Gulf shipments, except 7,985 bbl., went to North Atlantic ports.

Texas Co. shipments in June totaled 6,155,645 bbl. of crude and refined products compared to 5,582,399 bbl. in May and to 5,738,806 bbl. in June 1940. The company shipped 4,177,722 bbl. of products in June, including 576,072 bbl. to foreign destinations and 1,401,851 bbl. of crude oil all of which was for coastwise movement and domestic discharge.

# STATE CAPITALS...

## TEXAS

AT THE STATE-WIDE HEARING held in Austin last week, the sessions consisted mostly of hearing protests against planned prolonged shutdowns in the East Texas field, arguments for higher allowables in August and attacks on the commission's proration yardstick now in use.

Decided opposition developed to the plan to shut down the East Texas field in order to improve bottom-hole pressures, those testifying against the proposal stating that any benefits from the shutdowns would be only shortlived and that west-side operators would suffer drainage by the pressure equalization. Lloyd Hoslapple, petroleum engineer for Sinclair Prairie Oil Co., testified that the average drop in pressure for the past 3 months was 0.23 lb. per million barrels of production as compared with 0.34 lb. prior to that time. Average bottom-hole pressure on July 1 was 1,037 lb., he said, as compared with 1,045 lb. on April 1. Frank Speller, Jr., engineer for Delta Drilling Co., suggested that wells be worked over and that a program be adopted for reinjection of salt water on a unitized, subsidized basis.

H. P. Nichols, executive vice president of the East Texas Oil Association, pointed out on the commission's bottom-hole pressure curve of the field that there was no lasting help from the 2-week shutdown in August 1938. Although pressures built up rapidly during the holiday, he pointed out, they fell off rapidly until shortly after the shutdown the normal decline curve was again being followed.

Sinclair Prairie Oil Co. representatives testified that because of the present dislocation of transportation facilities, more production should be allotted to North Texas, North Central Texas, the Panhandle and West Texas. Paul McDermott stated the company's storage of Panhandle crude was near exhaustion and pointed out the contrast between the company's nominations and the allowable production of several North Texas fields.

THE TEXAS OIL ALLOWABLE order issued by the Railroad Commission on Monday set that state's net allowable production for August at 1,355,600 bbl. daily. This figure represented a 983-bbl. gain from the authorized allowable reported July 19, and is 6,000 bbl. daily under the Bureau of Mines estimated market-demand figure for August. The order calls for 10 producing holidays, on August 2, 3, 9, 10, 16, 17, 23, 24, 30 and 31, for the state as a whole. In the Panhandle wells will be closed only on August 3, 10, 17, 24 and 31.

Commissioner Jerry Sadler stated that all Panhandle wells had been placed on a 20-bbl. allowable, but that the commission planned to hold a hearing early in August for the purpose of establishing individual well allowables. This planned action is the result of testimony given at the state-wide hearing last week, to the effect that some wells are not capable of making the 20-bbl. allowable and that relief should be granted to wells which can make better than the 20-bbl. allowable. Date for the hearing as yet has not been set.

Commissioner Sadler also announced that the commission was prepared to call a special hearing for the purpose of dealing with technicalities involved in the plan to donate 1 day of Texas oil production to Great Britain. The proposed gift was suggested by John F. Camp, San Antonio independent oil operator, and has been endorsed by federal Coordinator Ickes.

## LOUISIANA

LOUISIANA'S DAILY OIL ALLOWABLE for August was set at 324,500 bbl., Joseph L. McHugh, director of the Department of Minerals, announced on Monday. The August allowable is the same as the Bureau of Mines estimated market-demand figure for that month, but is 21,103 bbl. daily higher than the schedule covering the first half of July. It exceeds by 8,825 bbl. daily the proration schedule issued July 15 for the latter part of July, which was issued after producers and purchasers complained curtailment during the first half was too rigid. Testimony given at the July 8 hearing showed that crude stocks were decreasing rather than increasing.

THE DEPARTMENT OF CONSERVATION and the Department of Minerals will be merged shortly, according to Gov. Sam H. Jones, subject to legal rights. Under the state's new reorganization the minerals body was separated from the Conservation Department with which it had been associated. However, a recent state Supreme Court decision invalidating the reorganization amendment made necessary reversion to the former system.

W. H. Hodges will remain as commissioner of conservation, and the former director of minerals, Joseph L. McHugh, will be named chief of the Minerals Division of the Conservation Department. Replacing the former board of minerals will be the corresponding body under the Conservation Department, composed of B. A. Hardey, Shreveport; J. W. Smither, New Orleans; Robert L. Knox, Lake Charles, and C. C. Sheppard, Clarks.

### TEXAS' FUTURE CHIEF . . .

*COKE R. STEVENSON, Junction, Tex., rancher, will become administrative head of the nation's largest oil-producing state next month when Gov. W. Lee O'Daniel leaves Austin to accept seat in the United States Senate. Mr. Stevenson, now lieutenant governor, was born in Mason County, Texas, in 1888 and has lived in the Hill Country all his life. He has served in the Texas House and Senate continuously since 1926. He holds the distinction of being the only man in Texas' political history to serve two terms as speaker of the house. He has served as lieutenant governor and head of the senate since 1938 after a decade in the house. His political philosophy is basically conservative and his long service in public office gives him a keen sense of the value of the petroleum industry to Texas*

## ILLINOIS

GOV. DWIGHT H. GREEN is expected to permit the state's new oil-control bill to become a law without his signature before July 28.

The measure, which represents a compromise reached in closing days of the sixty-second general assembly, reached the executive's desk July 17, a short time after he permitted a companion bill to become a law without his signature. The latter appropriated $250,000 for the next 2 years as administrative costs for the new measure.

Regarded as a "stop-gap" program, the new bill falls far short of the governor's desire to create a three-man oil commission with wide regulatory powers. The commission plan failed when factions in the industry were unable to reach an agreement on cardinal features of the "anti-physical waste program."

Robert M. Medill, director of the state Department of Mines and Minerals, whose department is entrusted with enforcement of the act, has already laid the groundwork for the new Oil and Gas Conservation Division. The bill essentially establishes a formula for the spacing of wells; provides for drilling on a block basis in municipalities; sets up safeguards against physical waste; authorizes the division to make regulations concerning drilling, spacing and plugging of wells; provides a court of review of any action by the division; requires a permit for drilling of wells, with a $10 fee together with a $1,000 bond to insure plugging, or proof of financial responsibility. The measure also contains provisions to protect coal properties, and repeals a present law pertaining to oil, gas and water wells.

In an effort to avoid payment of fees and posting of bonds before the law becomes effective, operators have rushed to file applications for permits since mid-June. Records of the department show that an average of more than 100 permits have been issued weekly since the legislation was under discussion.

The governor on July 19 signed a bill (S.B. 645) creating the Illinois Petroleum Lease Commission. The bill authorizes granting of drilling permits and leases on public lands with the approval of the governor, and sets forth in detail terms and conditions of such transactions.

Shortly before the bill was signed, Atty. Gen. George F. Barrett ruled on July 11 that the state —under its present laws—could not lease state-owned land for oil drilling. However, the attorney general made it clear that approval of the lease commission bill would legalize such actions.

The OIL AND GAS JOURNAL

PRODUCING REFINING NATURAL GASOLINE PIPE LINE

Published weekly by The Petroleum Publishing Company at Tulsa, Oklahoma

# The Matter of Price

The action of the Office of Price Administration and Civilian Supply in asking that the refinery price for premium-grade gasoline at Gulf Coast plants not exceed 6 cents per gallon again raises the question as to what the industry's attitude should be toward these efforts to control its operations through price regulation—stripped of all subterfuges, that is exactly what these price-administration moves mean.

The latest request follows the ill-conceived order of the O.P.A.C.S. last month in demanding that West Coast operators rescind needed price advances that had been made effective in crude oil and products. Those concerned lost no time in presenting their case vigorously at Washington and the Government has retracted from its unwarranted position.

In justifying the 6-cent top, the price controllers pointed out that Gulf Coast gasoline quotations have advanced recently from low quotations of 3⅜ cents per gallon. This is correct; in fact substantial quantities of distress gasoline last year were sold below that figure.

The Government's spokesmen did not explain that these gasoline sales represented little more than the per-gallon cost of the crude oil delivered at many of the refineries. They did not reveal that during this low-priced period, brought about largely through the collapse in export markets, Gulf Coast refiners paid for their crude oil, maintained their payrolls and kept their plants open with borrowed money or by drawing on reserves. Conditions were similar in refinery operations over a large part of the United States throughout last year.

There was little complaint. Operators in this industry long ago learned to take the unsatisfactory years in stride. But any fair approach to the industry's pricing problems must take into account that the best interest of the country during these confusing times will not be served by forcing a continuance of the lean periods.

This is only one phase of price administration. More important is the certain futility of any effort to regulate through the price control of one product in one area in an industry whose operations are subject to reactions from national and international developments.

The 6-cent price does not take into consideration the returns from the other principal products and the large number of byproducts. It does not include rising wage scales which in turn spring from outside conditions affecting cost of living. By the very nature of the business it could not accurately weigh any of the hundreds of factors that enter into the making of oil markets.

It is like trying to prevent water from going through a sieve by plugging one hole . The petroleum industry is one of the nation's largest enterprises, producing its raw materials and manufacturing and marketing its finished products under widely varying conditions. To maintain its operations it is one of the largest buyers of thousands of products of other industries. Its payments to employes are among the highest. All these elements enter into the determination of price for every oil product sold.

Under the most favorable circumstances it is impossible to apply price control to the American way of doing things. Its application means sacrifices to producer or consumer and ultimately both. The results from the bungling efforts of governmental experts at application to agriculture are a case in point.

If price control must be a part of the existing emergency then it will have to start with the costs of the basic commodities, all of which must be balanced one against the other and then spread to the manufactured products. This involves the adoption of a sound labor program, from which the present administration has always shied.

Viewed from any angle, control of price is another problem where one starts at the bottom and not at the top in arriving at solutions.

# Watching WASHINGTON

By HENRY D. RALPH

**Complete congressional action on Cole pipe-line bill . . . Ickes seeks to withhold information on tanker transfers . . . Request one-third reduction in gasoline consumption in 16 eastern states**

WASHINGTON, D. C., July 22.—Congressional action on the Cole pipe-line bill, authorizing the president to grant the right of eminent domain to obtain rights-of-way for the construction of pipe lines to eliminate the present shortage of petroleum-transportation facilities to the East Coast, caused by the recent transfer of American flag tankers to the British service, was completed today.

The House adopted the conference report on the measure after the elimination of an amendment injected by the Senate which would have limited the authority of the president to suspend provisions of the Interstate Commerce Act, the Natural Gas Act, and the Elkins Act. The Senate adopted the conference report yesterday, and the bill now goes to the White House for the president's signature.

The Senate amendment, placed in the bill at the request of the Interstate Commerce Commission, was withdrawn in conference following the receipt of a letter from Defense Petroleum Coordinator Harold L. Ickes, stating that the commission had withdrawn its request upon being assured that any suspension of any provision of law relating to the construction or operation of the proposed pipe lines would be effected only after a conference with the I.C.C.

As finally enacted, the measure is exactly the same as reported out by the House interstate and foreign commerce committee. Before being introduced, it was submitted to the president and received his full approval.

The importance of the bill has been enhanced by the new request of the British Government for the transfer of additional tankers. It has been requested that 10 tankers a month be shifted to the shuttle service supplying Britain, most of these to come from the already crippled Gulf to East Coast trade.

Following a meeting with the oil companies operating in this trade, yesterday, Mr. Ickes issued a statement to the effect that no further details of impending tanker transfers should be published on the grounds that any such shifts are hereafter to be classed as "military secrets."

### Order Weekly Sales Report

The first step in a "crackdown" on consumers of petroleum products on the eastern seaboard, to alleviate the impending shortage of gasoline and oil resulting from the recent transfer of 50 tankers from the Gulf to East Coast trade to British service, was taken yesterday by Defense Petroleum Coordinator Harold L. Ickes.

Following the issuance of an official recommendation Saturday, requesting the "voluntary cooperation by the industry and by consumers of motor fuel to reduce their consumption by 33⅓ per cent" in the Atlantic Coast states, sent to the governors of the 16 affected states, Mr. Ickes today ordered 19 major oil companies operating on the East Coast to make weekly reports on retail sales.

In his recommendation, Mr. Ickes warned that a reduction of one-third in consumption in the Atlantic Coast area is imperative if drastic compulsory rationing is to be avoided. The coordinator's recommendation was sent to the commissioners of the District of Columbia, oil companies operating on the East Coast, and other agencies, as well as the state governors.

"It has become the patriotic duty of every one in the states affected by the impending shortage of petroleum products to reduce their consumption of such products," Mr. Ickes declared. "Loyal Americans, in view of the seriousness of the situation, will cooperate.

"A substantial part of the necessary reduction can be achieved by the adoption of conservation methods such as correcting faulty motors, driving at reasonable rates of speed, the use of but one automobile instead of several by those who drive to and from work, when they live and work in the same general areas, and the elimination of wasteful practices generally."

### Commends Governors' Response

Mr. Ickes stated that the governors of the respective states, to whom he appealed recently to lead programs for the reduction of gasoline consumption, "had responded wholeheartedly," and he was hoping they would renew their efforts now that the gravity of the situation was again called to their attention.

The telegram sent to the oil companies today was in the nature of a check to determine to what extent the requests for voluntary reduction in consumption of petroleum products are being complied with.

The coordinator warned that unless the 33⅓ per cent reduction which he requested is complied with, "the rationing of petroleum products may become necessary."

Meanwhile, rumors that addition tankers will be transferred to the British, further accentuating the acute shortage facing the important industrial cities of the East, are growing stronger. It has been learned that a definite request for an additional 10 tankers per month for the next 6 or 7 months is in the hands of the administration.

Questioned concerning the possibility of more tankers being transferred to the British service, Mr. Ickes refused to answer, merely saying that "there is too much loose talk about tankers around Washington." A sharp controversy between the coordinator and the Maritime Commission's Bureau of Emergency Shipping has arisen over this problem. Mr. Ickes is strongly opposed to any additional transfer at the present time, believing that such action may hinder our all-out effort to aid Britain in the long run, through the slowing up of military supplies to that country.

The Office of the Petroleum Coordinator refuses to discuss the subject on the grounds that because of the international aspects involved, this is a matter to be decided by the White House and the State Department.

### Less Curtailment Than Anticipated

The Bureau of Mines, in its monthly forecast of demand for motor fuel and crude oil, points out that if "no further tanker withdrawals occur," progress in transportation readjustments, necessitated by the original withdrawal of tankers from the gulf to East Coast movement, indicates less curtailment of Gulf Coast markets in August than might have been anticipated.

"The stepping up of deliveries by the remaining tankers in service, the shift of tankers from the California-Atlantic service to the Gulf-East Coast route, increased overland shipments, and participation in larger exports and increasing naval requirements may offset to a considerable extent the loss of Gulf Coast markets due to a curtailment in East Coast consumption," the bureau reported.

A request that all petroleum refiners in the Gulf Coast area maintain a base price of 6 cents per gallon for Gulf Coast gasoline was transmitted to all refiners in the Gulf Coast area late last week by Administrator Leon Henderson, of the Office of Price Administration and Civilian Supply.

Mr. Henderson pointed out that the quoted low of the market for this gasoline has gone from 3⅝ cents per gallon on the first of the year to 6 cents per gallon on June 19, when the oil industry was requested to maintain consumer prices at present levels. Several cargoes have recently been reported moving at prices ranging from 6¼ to 6½ cents.

The price coordinator indicated that there is now an extraordinary demand for gasoline on the Gulf and that the request to maintain the prevailing market was deemed necessary to control speculative buying.

Selection of five cities as headquarters of the branch offices to be established by the Office of the Petroleum Coordinator were announced last week. They are New York, Chicago, Denver, Houston, and Los Angeles. Mr. Ickes said that the staff to be located in each office would exercise immediate jurisdiction over its region subject to the Washington headquarters office.

These districts correspond to the areas for which industry committees were recently appointed and the offices designated will be used as headquarters not only for the district staffs but also for the district industry committees.

# New

## TUBING SAFETY VALVE
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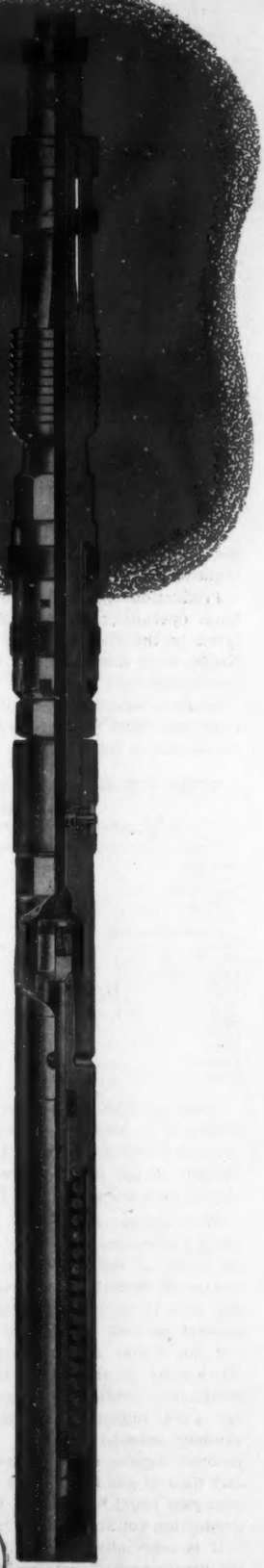
## SURGING FLOW



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As long as the capacity of the surface choke is materially less than that of the openings through the Safety Valve, practically all of the pressure drop takes place at the surface choke—there being only a negligible pressure drop across the Safety Valve.

However, when the size of the surface choke, either because of cutting or of outside damage, approaches that of the openings through the Safety Valve, a pressure differential is set up across the Safety Valve which causes it to instantly close and shut off all flow through the tubing.

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# International

## U. S. S. R. . .

### Soviets Had Set High Oil-Production Goal

PRODUCTION of 277,000,000 bbl. of crude oil and natural gasoline is the 1941 goal of the Soviet Union, according to an analysis of records and discussions presented at the eighteenth conference of the Communist Party. Furthermore, the Soviets planned production of 394,000,000 bbl. in 1942, the final year of the Third Five-Year Plan.

Plans of the Soviet petroleum industry and party leaders were outlined before the German invasion.

Production figures and other details of petroleum operations in the U.S.S.R. have been analyzed in the German trade publication, Oel und Kohle, from discussions at the Communist Party conference held at Moscow in February.

Soviet production of crude oil and natural gasoline from 1925 through 1940 is reported by Oel und Kohle as follows:

**CRUDE PETROLEUM AND NATURAL GASOLINE PRODUCTION**

(Figures in United States barrels)

| | |
|---|---|
| Fiscal years ending September 30: | |
| 1925-26 | 61,630,000 |
| 1926-27 | 76,151,000 |
| 1927-28 | 84,943,000 |
| 1928-29 | 99,829,000 |
| 1929-30 | 126,554,000 |
| Calendar years: | |
| 1930 | 137,242,000 |
| 1931 | 168,370,000 |
| 1932 | 162,633,000 |
| 1933 | 163,718,000 |
| 1934 | 186,711,000 |
| 1935 | 195,336,000 |
| 1936 | 212,868,000 |
| 1937 | 223,912,000 |
| 1938 | 234,920,000 |
| 1939 | 244,215,000 |
| 1940 | 249,318,000 |

These data show that petroleum production of Russia is proceeding, according to these official data, in a rising line, even if the tempo of development in the last 2 years has been somewhat slower than the average of the preceding years.

On the other hand, data given at the Moscow party conference show that the results to date of the work of the petroleum industry during the winter of 1940-41 have turned out favorably. So the activity of the petroleum industry could in general prevent the decline which occurred during the winter months in previous years. It is noteworthy in this connection that the average production results this time in the winter months are even higher than the production in the summer months of 1940. In consequence the planned figures for the production of petroleum and natural gas in the first 2 months of the current year could be attained, where the increase in production continues.

It is especially important in this regard that the greatest petroleum combination of Russia, the Baku field, whose production results figure largely in the total output, continues to lead all other districts. The same is true also for the Grozny field which takes second place in the Russian oil industry according to the extent of its production. Various other petroleum combines and trusts of the Russian petroleum industry are behind in carrying out the proposals, as for example the Bashneftkombinat which embraces all the petroleum activities in Bashkiria and accordingly the principal field in the oil district between the Volga and the Urals ("Second Baku"). In spite of these advances in petroleum production in the U.S.S.R., the fact remains that the Russian petroleum industry, as was emphasized in various reports at the party conference, now faces the task of increasing its accomplishments in production in a still more accelerated tempo in order to attain the goal set by the Third Five-Year Plan.

## Spain . .

### Government Agency Is Building Three Tankers

THE Spanish petroleum monopoly, "Campsa," is scheduled to launch one new tanker this year out of a construction program embracing three vessels. The other two boats are scheduled for construction in 1942.

After the outbreak of the war in September 1939 difficulties arose in supplying Spain with mineral oils in connection with the capacity of the tanker tonnage. The Spanish tanker fleet was not adequate for supplying the normal requirements of the country, which were imported mostly from Mexico and Venezuela. During the first months of the war this problem could be settled in general by chartering neutral tonnage. With the increasing scarcity of tonnage on the international freight market the difficulties of supplying Spain with gasoline increased and were further aggravated by the measures of the British naval warfare, so that finally the Spanish Government had to decide on the well-known measures for restricting gasoline consumption which worked hardships for many branches of industry. But even for supplying the greatly curtailed consumption the Spanisn tanker fleet was inadequate from the start.

## Venezuela . .

### Coring Under Way on Deep San Joaquin Area Test

SOCONY-VACUUM Oil Co., Inc., is coring below 9,365 ft. in 3 Guario in the San Joaquin area, one of the deepest wells now being drilled in Venezuela. Its 4 Guario, in the same area, is shut down with drill pipe stuck at 6,598 ft.

This company's 1 Anaco, in the Roble area, is drilling below 11,190 ft. while the 1 Hamaca, in the State of Anzoategui, is shut down at 3,402 ft. awaiting cement.

## Colombia . .

### Casing Being Cemented

SOCONY-VACUUM Oil Co., Inc., 1 Cimitarra, in the Magdalena Valley, is shut down at 1,494 ft. Drilling will be resumed after casing is set.

## Argentina . .

### Negotiations for Oil In Bolivia Reopened

REPRESENTATIVES of Argentina are reported to have signed treaties with Bolivia and Paraguay for final consummation of plans to bring Bolivian petroleum into world markets.

The most important conclusion for Argentina is the final signing of the contract for building a railroad from Yaculba in Argentina to the Bolivian oil field of Santa Cruz. Another project included in the negotiations is the construction of a pipe line from the Bolivian plateau to Santa Cruz, probably paralleling the railroad. Argentina is reported planning to finance both projects and to have arranged repayments in Bolivian oil.

Information has not been made available on the position of Bolivian petroleum operations since the government canceled contract of the Standard Oil Co. of Bolivia in 1936. Doubts exist, however, that development has been extensive.

## Rumania . .

### Severe Damage to Ploesti Fields Claimed by U.S.S.R.

SEVERE damage to the Rumanian oil fields at Ploesti is claimed by the U.S.S.R. air force in communiques issued by the Soviet high command. Visitors arriving at Ankara, Turkey, from the Balkans confirmed these reports and stated that while damage has been severe German engineers continue to operate the fields.

More severe damage is reported to have been accomplished by Soviet bombers in air raids on Rumania's port of Constantza from which the bulk of her oil exports are normally shipped. These reports state that this has been a blow to Italy which was getting oil by tanker from Constantza since German occupation of the Balkans.

Damage to oil-storage facilities was said to have been held to a minimum by the fact that the Germans had encased many tanks in concrete.

## Mexico . .

### Expropriated Companies Renew Recovery Effort

Another effort to recover expropriated oil properties in Mexico was launched in Mexico City last week by 16 of the 17 United States and British companies who filed petitions asking the Supreme Court to invalidate the seizure. Expropriation was attacked as unconstitutional and the companies petitioned for return of their properties.

The only company whose properties were expropriated that did not join in the recovery petition was the Sinclair organization. Claims of the Sinclair interest were settled last year when the Mexican Government agreed to pay $8,500,000 in cash and notes.

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# *District Oil Committees Hold Organization Meetings*

ORGANIZATION meetings of the oil coordinating committees in Districts 2 and 3 are being held this week at Houston, Tex., and Chicago preparatory to a general meeting of district and functional committee chairmen in Washington, D. C.

The District 3 production committee, headed by George A. Hill, Jr., president of Houston Oil Co., and Harry C. Wiess, president of Humble Oil & Refining Co., Houston. John W. Newton, vice president of Magnolia Petroleum Co., Beaumont, Tex., chairman of the refining committee in District 3, is in Mexico and organization of his group may be delayed a few days.

Frank Phillips, Bartlesville, Okla., chairman of Phillips Petroleum Co. and general chairman of

***Additional chairmen of functional committees in the petroleum coordination program are: E. E. Pyles, vice president Hancock Oil Co., Long Beach, Calif., and chairman of the District 5 production committee; H. Earl Clack, president Clack Oil Co., Havre, Mont., and chairman of the marketing committee in District 4; Henry D. Moyle, president Wasatch Oil & Refining Co., Salt Lake City, Utah, and chairman of the refining committee in District 4; H. W. Dodge, vice president Texas Corp., New York, and chairman of the marketing committee in District 1. Pictures of other chairmen were published on Pages 13, 30 and 32 of the July 17 issue***

was held Monday in Houston, Tex. Joe Russell, Houston, executive assistant in the Gulf Oil Corp. there, was elected secretary of the committee.

Charles F. Roeser, Fort Worth, Tex., chairman of the general committee in District 3, organized his group Wednesday. At the same time organization details were attended by the marketing and transportation committees for the district, headed respectively by Roy B. Jones, Wichita Falls, Tex., chairman of Panhandle Producing & Refining Co., District 2, is holding a general organization meeting Thursday of all functional committees and the general group at Chicago.

Grady Vaughn, Dallas, Tex., independent producer and operator, was reported to have been appointed deputy district coordinator for District 3. Wirt Franklin, Ardmore, Okla., is rumored to be the selectee for the deputy coordinator's position in District 2. Both appointments so far lack confirmation from Washington.

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# $70,000,000 Defense Pipe-Line Route Approved by Ickes

**Route of the defense pipe-line approved by Coordinator Ickes July 22 was mapped on Page 15 of The Oil and Gas Journal for July 17. Sizes of the lines to be laid and the main points of control are reviewed in the accompanying discussion.**

WASHINGTON, D. C., July 22.—Immediate construction of a $70,000,000 pipe-line system to carry 250,000 bbl. of crude oil daily to the East Coast and an augmented tanker-building program for the construction of "40 to 50 large high-speed vessels" in addition to the 139 now under construction or contract by the Maritime Commission and by private companies was recommended today by Defense Petroleum Coordinator Harold L. Ickes.

The action was taken immediately following completion of congressional action on the Cole pipe-line bill. This measure, after it is signed by President Roosevelt, will permit the exercise of the power of eminent domain in obtaining rights-of-way for pipe lines declared essential for national defense by presidential proclamation. It also authorizes the president to suspend all provisions of the Interstate Commerce Act, the Natural Gas Act and all acts amendatory thereto, if found necessary for either the construction or operation of such lines.

This recommendation is in the nature of a compromise between the Mid-Continent and Southeastern groups. Under Mr. Ickes' plan the line would originate in the East Texas fields and proceed as a 20-in. line to a point in Illinois approximately 60 miles east of Wood River, in the general neighborhood of Nashville, Salem, or Sandoval.

This 20-in. line would have a daily capacity of 200,000 bbl. At its Illinois terminal the 20-in. line from Texas would connect with a 16-in. line originating at Wood River, Ill., where other lines from the Mid-Continent and Texas fields now terminate. The proposed 16-in. line would have a maximum capacity of 115,000 bbl. daily.

From the junction of the two lines a 24-in. crude-oil line with a daily capacity of 250,000 bbl. would be constructed to the Atlantic Coast, terminating in the Philadelphia and New York refining areas.

Although the combined daily capacity of the 20-in. line from Texas and of the 16-in. line from Wood River totals 315,000 bbl., the capacity of the 24-in. line after the junction is made will be 250,000 bbl. This excess capacity of the two feeder lines is intended so as to obtain a greater flexibility in procuring crude oil for transportation on to the East Coast.

"So routed," Mr. Ickes said, "the main line, with the necessary feeder-line connections, will reach the principal sources of oil production east of the Rocky Mountains, and thus will be supported with a maximum of crude reserves."

The projected pipe line, if all conditions for its construction are ideal, will probably require a minimum of 8 months for construction and, accordingly, will not be a factor in abating the East Coast shortage for some time.

"Further consideration should immediately be given by the industry to the question of constructing a petroleum product line from the Gulf to the Atlantic seaboard," Mr. Cole added.

The coordinator announced that he is prepared to recommend priorities in steel and machinery for both the crude-line project and the tanker construction.

"The existing and prospective shortage of tank ships makes urgent a tanker-building program looking to the construction in the shortest possible space of time of 40 to 50 large high-speed vessels in addition to those now in the course of construction or under contract," he added.

Among the companies expected to unit in the joint construction of the proposed pipe-line system are: Socony-Vacuum Oil Co., Inc., Cities Service Co., Standard Oil Co. of New Jersey, Atlantic Refining Co., Tide Water Associated Oil Co., Shell Oil Co., Inc., Gulf Oil Corp., Texas Co., and Consolidated Oil Co.

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## Antitrust Defendants Asked For Advertising Cost Data

WASHINGTON, D. C., July 21.—An exhaustive questionnaire calling for complete information with respect to advertising costs of major oil companies, including radio, newspaper, periodical and outdoor advertising, has been sent to the oil companies and their subsidiaries named in the antitrust action now pending before the U. S. District Court by Asst. Atty. Gen. Thurman Arnold, in charge of the Antitrust Division, Department of Justice.

Mr. Arnold requested that the information requested be supplied him by July 21 covering the 18 months ended June 30, 1941. It is to cover all expenditures for advertising on motor fuels, motor oils, and automotive lubricants.

While no reasons for the request were made public, several possibilities are being discussed. Due to the current, and even more serious impending shortage of petroleum products in the East Coast, caused by the transfer to British service of tankers formerly engaged in supplying the eastern seaboard with petroleum, it is thought that this move may be the first step toward a pooling of all gasolines and oils transported to the eastern cities to be distributed to retail dealers under government grades rather than brand names as at present.

This procedure would permit the setting of standard prices for the various grades of gasoline and oil regardless of the actual cost of transportation on any particular shipment. Thus, all gasoline of a particular grade would be pooled, whether shipped by tanker, pipe line or rail, and the cost of shipment would be based on the average cost per gallon of all gasoline transported.

# Refinery Expansion

## Petroleum Specialties Enlarging Cracking Capacity of Michigan Plant

CHICAGO.—Petroleum Specialties, Inc., has signed a license agreement with Universal Oil Products Co. and is modernizing its refinery at Flat Rock, Mich. At present the plant is running 2,350 bbl. a day of Illinois crude, cracking about 600 bbl. a day of topped crude. When the improvements are completed, the Dubbs cracking capacity will be increased to 900 bbl. a day.

The plant was built several years ago by the Interlakes Refining Co. to operate on Michigan crude but recently has been shut down. West Gallogoly is president of Petroleum Specialties, Inc., and C. S. Whitman, formerly associated with Leader Iron Works of Decatur, Ill., is refinery engineer.

## Atlas Reorganization Plan Given Approval

The reorganization plan of the Atlas Pipe Line Corp., Shreveport, La., was approved in federal court last week, clearing the way for purchase of the company's properties by a group of operators who own production in southern Arkansas.

The 9,000-bbl. refinery and three-story office building in Shreveport, and pipe-line facilities linking Shreveport with South Arkansas and East Texas will be included in the purchase.

The new company will take over the properties from the receiver under an agreement in which interest on first-mortgage bonds will be reduced from 6 to 4½ per cent, second-mortgage bonds will be canceled for $435,000 worth of preferred stock in the new corporation.

Those interested in purchasing the company include the Southwood Oil Co., Grady Vaughn, the Frankel interests and the Goldston interests of Houston, Tex.

## To Build 2,000-Bbl. Plant At Deming, New Mexico

HOBBS, N. M.—Plans for the construction of a 2,000-bbl. plant at Deming in the southwest corner of New Mexico have been announced by Mac Hall, formerly associated with the Midwest Refining Co. at Artesia, N. M. Mr. Hall stated that equipment has been bought and is ready to be shipped to the plant location. The plant will operate on Eddy County crude oil and will market refined products in Southwest New Mexico and in Arizona. The plant will be operated at about 600 bbl. daily when first started up, producing gasoline, kerosene, distillate, diesel fuels and fuel oils.

## Home Plant at Great Falls Operated at Full Capacity

GREAT FALLS, MONT.—The 1,500-bbl. refinery of Home Oil Refining Co. here, recently purchased by A. B. Cobb & Co., is being operated at full capacity by the new management. Mr. Cobb has been personally supervising the operations, with all personnel the same as under the old management. A new corporation capitalized at $750,000 has been formed, it being known as the Home Oil & Refining Co., or the same as the former company controlled by W. E. Rice. Incorporators of the new company are A. B. Cobb, Mary L. Cobb, and C. W. Jeffery of Rawlins, Wyo. Enlargement of the plant's skimming capacity to 3,000 bbl. daily is now in progress. Cracking capacity of the plant is 1,200 bbl. daily.

# Natural Gas

## Panhandle Eastern Plans Large Expansion Program

Panhandle Eastern Pipe Line Co. is preparing for an expansion program which will call for the laying of a total of 435 miles of pipe. The first step in carrying this out will be the letting of contracts for 45 miles of 8-in. from the vicinity of Peoria to Galesburg, Ill., and 8 miles of 4-in. near Abingham, Ill., according to J. C. Reinbold, general superintendent.

The company will ask for bids on more than 146 miles of loops and 236 miles for a branch-line system in Michigan.

The looping program includes 10.47 miles of 26-in. connecting with suction of station at Olpe, Kans.; 10.25 miles of 26-in. connecting with suction of station at Houstonia, Mo.; 15.25 miles of 26-in. connecting with suction of station at Centralia, Mo.; 16.37 miles of 24-in. connecting with discharge of station at Centralia, Mo.; 6.7 miles of 24-in. connecting with suction of station at Pleasant Hill, Ill.; 27 miles of 24-in. connecting with suction of station at Glenarm, Ill.; 36 miles of 24-in. connecting with suction of station at Tuscola, Ill., and 21 miles of 20-in. to complete looping system to Illinois-Indiana state line. On the main line, two 12-in. lines will be laid across the Mississippi River and two 12-in. lines across a river in Illinois.

As a result of the expansion of Panhandle Eastern Pipe Line Co., by which it acquires the facilities of Michigan Gas Transmission Corp., a 236-mile branch line is planned which will provide a line to the Detroit area which will have laterals serving Jackson, Marshall, Battle Creek, Kalamazoo, Flint, and the area beyond Saginaw. The part of line which goes to the Detroit area will run eastward south of Pontiac and terminate at Clawson, Mich. The line will connect with the Michigan Gas Transmission line at the point where it crosses the Ohio-Michigan state line. This branch-line system will include pipe in sizes of 12-in., 16-in., 20-in. and 24-in.

# Recycling News

## Lone Star and Shamrock Install Butane Unit

ATHENS, Tex.—Equipment is being installed at the Lone Star Gas Co. and Shamrock Oil & Gas Corp. recycling plant at Opelika, Henderson County, East Texas, for recovery of butane.

The Opelika plant is now producing about 4,500 bbl. of distillate per day which is shipped by pipe line to Gulf's pipe-line station at Big Sandy.

# Natural Gasoline

## California Group Will Issue Gasoline Data

LOS ANGELES, Calif.—W. C. Dayhuff, Standard Oil Co. of California, accepted the gavel as newly elected president of the California Natural Gasoline Association for the 1941-42 term when the annual board of directors meeting of that group was held recently in Los Angeles to hear reports of work accomplished during the year just closed and to formulate plans for the ensuing year.

J. B. Taylor, newly appointed chairman of the general technical committee, stated that the ensuing year will see the publication of several new bulletins. These will be on the subjects of fractional analysis of natural gas and gasoline, gas engine and compressor operation and truck gaging. The committee will also be concerned with writing a text book on the operation of natural gasoline plants for use in vocational training schools.

New committee chairmen other than Mr. Taylor include L. L. Bendinger, Lomita Gasoline Co., membership; W. W. Robinson, Jr., the Texas Co., advisory; T. L. Taggart, Standard Oil Co. of California, finance and budget; Fane H. Krebs, Lomita-Signal-Wilmington Associates, auditing; D. E. McFaddin, Union Oil Co. of California, program; John H. Kunkel, public relations counsel, publicity; Harold A. Dresser, Fluor Corp., Ltd., entertainment; R. D. Gibbs, Union Oil Co. of California, gas report; and M. W. Kibre, General Petroleum Corp., fall meeting.

## Natural-Gasoline Yield Continues to Increase

Production of natural gasoline in the United States averaged 167,000 bbl. daily in May, approximately 5,000 bbl. per day above the average for the first 5 months. Production in April averaged 166,000 bbl. daily. For the first 5 months, production of natural gasoline totaled 24,526,000 bbl., an average of 162,000 bbl. per day, compared to 421,940,000 bbl. for the same period a year ago when the daily average output was 144,000 bbl.

The outstanding increases in the rate of production occurred in the Texas Gulf Coast, East Texas and Long Beach, Calif. Texas Gulf Coast production in May totaled 22,448,000 gal. compared to 20,966,000 gal. in April. For the 5 months, Texas Gulf production this year totaled 103,467,000 gal. against 72,002,000 gal. in 1940.

Shipments to jobbers and retailers increased in May and were 22,050,000 gal. compared to 19,824,000 gal. in April, while deliveries to refinery-owned bulk plants declined from 7,980,000 gal. in April to 5,964,000 gal. in May.

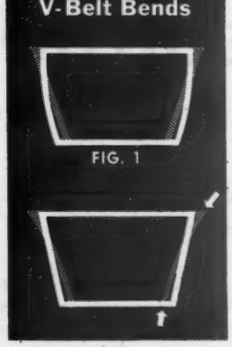
Stocks at refineries and at plants and terminals increased to 5,856,000 bbl. at the end of May compared to 5,504,000 bbl. on April 30.

This Gates Vulco Rope Drive runs a 4 well hook-up 24 hours a day for D. C. Mathews Oil & Drilling Co. Jim Mathews, Superintendent, says, "We have used all makes of V-belts in the past but now use Gates Vulco Ropes exclusively because of their long life under very hard conditions."

*Grip a Bending V-Belt Like This*

*and learn of*

# A BIG SAVING *in Belt Costs and in Power!*




Here is a simple fact about V-belt wear that you can prove in two minutes —and it will save you real money.

Pick up any V-belt you have handy. Grip its sides with your fingers—then bend the belt as it would bend in going around a pulley. You will feel the sides of the belt *change* shape! If the sides were *straight* before bending, they become *convex* as the belt bends. (See Figure 1 on the left). Note the out-bulge of the sides.

Now look at Figure 2. This shows the *same* shape-change in a belt with the patented concave side. But what a different result! This belt, when bent, precisely fits the sheave groove. Two big savings result—(1) There is no side-bulge and this means uniform side-wall wear—*longer life!* (2) There is a full side-width grip on the pulley and this carries heavier loads without slippage—saving the belts and also saving your *power!*

The concave side is a Gates patent. Only belts built by Gates are built with the concave side.

## THE GATES RUBBER COMPANY

*Engineering Offices and Stocks in All Large Industrial Centers*

# GATES VULCO ROPE DRIVES

**CHICAGO, ILL.** 1524 South Western Ave.
**HOBOKEN, N. J.** Terminal Building
**BIRMINGHAM, ALA.** 1631 1st Ave., South
**LOS ANGELES, CAL.** 2240 E. Washington Blvd.
**DENVER, COLO.** 999 South Broadway
**DALLAS, TEX.** 2213 Griffin Street
**PORTLAND, ORE.** 333 N. W. 5th Avenue
**SAN FRANCISCO, CAL.** 2700 16th Street

# Contracts Are Awarded for Five More Tankers

NEW YORK, July 22.—Award of contracts for five tankers to the Sun Shipbuilding & Dry Dock Co. during June increased the number of such vessels under construction in United States shipyards to 145, the July bulletin of the American Bureau of Shipping reveals. The new contracts included three tankers for the Texas Co., each of 9,600 gross tons; one of 11,400 tons for the Sun Oil Co., and another of 11,400 tons for the Atlantic Refining Co. The Texas Co. vessels will be 485 by 68 by 36 ft., steam powered; the Sun and Atlantic tankers will be 521 by 70 by 40 ft., the former diesel powered, and the latter steam-electric powered.

The 145 tankers now under construction or contracted have an estimated gross tonnage of 1,471,000 tons. Sixty-two of them will be steam powered, 76 turbo-electric, and 7 diesel. There were also 40 oil barges under construction or contracted on July 1 in contrast to 32 as of June 1, an increase of 25 per cent. The 40 barges have an aggregate of 20,125 gross tons. Of the new orders placed in June, four were for Pan-American Transport Co. and six for Nashville Bridge Co.

Three tankers were completed in June, according to the report, and four were launched. Completed tankers were the Stanvac Cape Town of 10,169 gross tons, built for Petroleum Shipping Co. by Bethlehem Steel, the 10,907-ton Albert E. Watts for Sinclair Refining Co. by Federal Shipbuilding & Dry Dock Co. and the 10,012-ton Stanvac Melbourne, also for Petroleum Shipping by Sun Shipbuilding & Drydock Co. The tankers launched included the Albert E. Watts, two 9,800-ton vessels, Stanvac Wellington and Stanvac Manila for Petroleum Shipping and the Paul M. Gregg, 8,000 tons, for Union Oil Co. of California.

The report also revealed that the size of the 72 tankers ordered by the U. S. Maritime Commission had been changed. Originally scheduled to include 36 vessels of 8,350 tons, they have all been raised to the 10,750-ton classification that formerly included but half the total. They will be steam-electric powered, generating 6,000 hp. Their dimensions will be 500 by 68 by 39 ft. 3 in. This change resulted in increasing the total tonnage of tankers under construction or ordered by 85,000 tons.

It is now generally predicted that the total number of tankers to be launched this year will be 27 against earlier predictions of 25.

A breakdown of the tankers under construction as of July 1 as reported by the Bulletin follows:

| Company— | Number | Gross tonnage |
|---|---|---|
| Atlantic Refining | 4 | 42,550 |
| Continental Oil Co. | 1 | 8,000 |
| Gulf Oil Corp. | 4 | 35,600 |
| Husky Transport Co. | 1 | 950 |
| Keystone Tankship Co. | 2 | 20,000 |
| National Bulk Carriers | 3 | 25,400 |
| Panama Transport Co. | 2 | 19,600 |
| Petroleum Shipping Co. | 5 | 49,000 |
| Richfield Oil Co. | 1 | 8,000 |
| Sinclair Refining Co. | 10 | 93,400 |
| Socony-Vacuum Oil Co. | 8 | 78,400 |
| Standard Oil (Calif.) | 2 | 22,800 |
| Standard Oil ((N. J.) | 11 | 118,200 |
| Sun Oil Co. | 2 | 22,800 |
| Texas Co. | 6 | 57,600 |
| Tide Water Associated Oil Co. | 1 | 1,560 |
| Union Oil Co. | 5 | 43,600 |
| U. S. Maritime Commission | 77 | 824,000 |
| Total | 145 | 1,471,490 |

# Stanolind to Pay $5,000,000 For Barnsdall Properties

NEGOTIATIONS are now under way for the purchase by Stanolind Oil & Gas Co. of Barnsdall Oil Co.'s producing properties in West Texas, it was announced in Tulsa on Monday. A total of 102 wells on 3,000 acres are involved in the deal, which has been agreed upon subject to titles, for which Barnsdall will receive approximately $5,000,000 cash. The wells are located in Ector, Andrews, Ward, and Winkler counties and have a current allowable of about 2,500 bbl. daily, D. R. Snow, vice president in charge of production for Barnsdall, stated in making the announcement. Transfer of operations is expected to take place about August 1.

Bulk of the producers involved in the deal are located in Ector County, with about 45 being in the Foster field and 35 in the North Cowden and Harper fields. The remainder are located in the Fuhrman, South Cowden, Shipley, and Kermit fields. Barnsdall's properties in New Mexico were not involved in the deal, nor was its 25,000-gal. daily capacity natural-gasoline plant near Odessa in the Foster field.

Regular employes of Barnsdall, except roustabouts, will be continued by either Barnsdall or Stanolind. Barnsdall will continue to operate its land and geological offices at Midland, but will close its production department at Odessa.

The deal will be the largest of several recently closed by Stanolind in West Texas. Recently the company reportedly paid $1,100,000 to Bond Oil Corp. and Awoeb Oil Corp. for 18 producing wells and approximately 700 acres in the Slaughter field of Hockley County. It also acquired the discovery well and 3,000 acres in the Abell field of northern Pecos County and additional acreage north of the area in south Crane County. In addition Stanolind bought a one-half interest in the M. J. Delaney properties in North Cowden.

## DEATHS

**EDSON L. MOTT,** former field-service representative for the Pennsylvania Grade Crude Oil Association in the St. Louis and Kansas City, Mo., territory, died recently in Glen Ellyn, Ill.

**J. W. CAIN, JR.,** 23, Houston, Tex., died there July 15 following an attack of infantile paralysis. He was employed by General Geophysical Co. in Mississippi and Louisiana until he was stricken. He attended Kinkaid School at Houston and was a graduate of Hill School at Pottstown, Pa., and of the University of Texas at Austin. He was a member of the American Society of Petroleum Geologists, Phi Eta Sigma, Sigma Gamma Epsilon and Kappa Sigma fraternities. His parents and a brother survive.

**FRANK R. VAUGHN,** 38, employe at Sinclair Prairie Oil Co.'s No. 12 natural-gasoline plant near Seminole, Okla., died July 18 from injuries received when a spark from the exhaust of a passing automobile ignited gas fumes.

**AUGUSTINE SAN JUAN,** 53, a civil engineer for several years with Shell Oil Co., Inc., stationed in Tulsa and other Mid-Continent operating offices, died July 16 in Mexico City, D. F., where he had lived since leaving the United States 8 years ago. Mrs. San Juan, who lives in Tulsa, and a sister, of Mexico City, survive.

**JOSEPH B. JETT,** 56, died last week in a Bradford, Pa., hospital. He had been ill since early May. He had been employed by the Kendall Oil Co. refinery for 12 years. He is survived by a daughter.

## Seek Policy of Preventing Hardships To Latin-American Customers

WASHINGTON, D. C., July 22.—Plans to prevent any undue hardships being caused in Latin-American countries through efforts now being made to abate the impending shortage of petroleum products on the East Coast will be discussed at a meeting Wednesday, July 23, with United States oil firms engaged in trade with these countries, it was announced today by Defense Petroleum Coordinator Harold L. Ickes.

This policy was announced after consultation with the State Department and Nelson Rockefeller, coordinator of commercial and cultural relations between the American republics.

Ralph K. Davies, deputy petroleum coordinator, placing into immediate operation the policy announced by Mr. Ickes, wired all American oil companies which directly or through subsidiaries ship crude oil or petroleum products to Latin America, requesting their attendance at the conference to formulate necessary plans to equalize as nearly as possible the expected curtailment in petroleum shipments to some of these countries.

## THE MARKETS*

CRUDE OIL: Growing strength of the crude-oil market was in evidence this week from various parts of the country. Two other large purchasers in the Texas Panhandle revised their schedules to the top price range there of 91 cents to $1.15 per barrel, effective July 9, making this table uniform among all buyers. A Pennsylvania refiner who has long applied pipe-line proration is now accepting 100 per cent deliveries and is, furthermore, running 1,000 bbl. of Illinois crude daily. Turner Valley, Canada, crude prices were advanced 27 cents per barrel, making the range there $1.35 for 33° gravity to $1.97 for 64° gravity.

REFINED PRODUCTS: Gasoline markets are strong throughout the country with sellers occupying the dominant position. Action of the Office of Price Administration and Civilian Supply in pegging the Gulf Coast base price at 6 cents was the week's outstanding development. All grades of fuel oil are strong.

TANK WAGON AND POSTED DEALER: Depressed prices at certain points in the Middle West are being elevated to parity with normal areas. Elsewhere prices in this phase of the market are steady.

FINANCIAL: The rise of oil securities was continued last week. Average of 30 representative stocks for the week ended July 19: High, 26.86; low, 26.01; close, 26.48. Week ended July 12: High, 26.80; low, 25.45; close, 26.56.

# PROGRAMS AND MEETINGS

## Oil Tax Representatives To Meet at Ponca City

Tax representatives of the petroleum industry in the Kansas-Oklahoma area will hold their fourth annual midsummer meeting at the Jens-Marie Hotel at Ponca City, Okla., on Friday and Saturday, July 25-26.

The business meetings on Friday and Saturday will be followed by a week-end outing at the Wentz camp (located approximately 4 miles northeast of Ponca City), and all petroleum-tax representatives will be the guests of L. H. Wentz on Saturday afternoon and Sunday, July 26-27. T. W. Prentice, of the Wentz organization, is in charge of the arrangements for the outing.

The program of the meeting follows:

**Friday, July 25, 1941**

Afternoon session.

2 p.m.—Federal taxation.

Presiding, J. B. Galbraith, Stanolind Oil & Gas Co., Tulsa.

"Provisions of the Proposed Revenue Act of 1941," by W. A. Hensley, Phillips Petroleum Co., Bartlesville, Okla.

"Analysis of G.C.M. 22730," by Ellis D. Bever, tax attorney, Wichita, Kans.

"Analysis of G.C.M. 22689," by H. F. See, Atlantic Refining Co., Dallas, Tex.

Open forum discussion.

Evening session.

7 p.m.—Tax dinner, banquet room, Jens-Marie Hotel.

Presiding, L. W. Bennett, Sunray Oil Co., Tulsa.

"Views of the Oil News"—a round-table discussion.

Panel, Claude Barrow, oil editor, Daily Oklahoman, Oklahoma City; Paul S. Hedrick, oil editor, Tulsa World, Tulsa; Joseph A. Kornfeld, oil editor, Wichita Beacon, Wichita; Andrew M. Rowley, oil editor, Tulsa Tribune, Tulsa.

**Saturday, July 26, 1941**

9:30 a.m.—State taxation.

Presiding, Earl L. Drake, L. H. Wentz (oil division), Ponca City.

"Recent Kansas Sales Tax Rulings," by W. I. Hanson, Stanolind companies, Tulsa.

"Analysis of the Proposed Social Security Tax Establishment Reporting Plan," by G. E. Matter, Indian Territory Illuminating Oil Co., Bartlesville.

"The Oklahoma Ad Valorem Assessment Code," by Mastin Geschwind, tax attorney, Oklahoma City, Okla.

Open forum discussion.

## Gasoline Tax Administrators Hear Address on Problem of Refunds

RAPID CITY, S. D.—The Central West States Gasoline Taxes Administrators Conference is holding its annual conference here on July 23-24, devoting its sessions to problems of gasoline-tax evasion and refunds. The conference, headed by J. A. Ainley, chief of the division of motor fuels for the State of Nebraska, is comprised of motor-fuel tax administrators from the states of Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

Frank W. Martinek, chairman of the Central Gasoline Tax Evasion Committee, Chicago, in his third consecutive appearance before the group, gave an outstanding address in the Wednesday morning opening session. In dealing with present problems of the gasoline-tax evasion committees, Mr. Martinek pointed out that through research and development departments of practically every large company in the oil industry, new substitutes for gasoline are constantly being developed. He drew attention to the greatly increased use of diesel fuels and propane-butane and other liquefied gas mixtures. These fuels, he pointed out, when used on the highways are taxable and will necessarily add to the burden of every state motor-fuel tax administrator.

## Stripper Operators to Meet In Tulsa in October

The annual meeting of the National Stripper Well Association will be held at the Mayo Hotel, Tulsa, Monday, October 20, according to an announcement by Charles P. McGaha, Wichita Falls, Tex., who is president of the association.

This date coincides with the opening day of the annual meeting of the Independent Petroleum Association, but does not conflict as the latter organization will devote all that day to committee meetings.

In addition to Mr. McGaha, other officers of the National Stripper Well Association are H. B. Fell, Ardmore, Okla., executive vice president; Howard J. Whitehill, Tulsa, secretary, and the following vice presidents: Guy T. Berry, Independence, Kans.; Richard Fenton, Los Angeles, Calif.; Wirt Franklin, Ardmore, Okla.; A. H. Ledbeter, Mount Pleasant, Mich.; Harry Leonard, Roswell, N. M.; Lee Mulvihill, Robinson, Ill.; N. W. Shiarella, Owensboro, Ky., and Ralph T. Zook, Bradford, Pa.

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## Eighty-three Tankers Scheduled Before 1944

WASHINGTON, D. C., July 21.—Eighty-three tankers capable of loading 11,399,000 bbl. will be completed between August 1, 1941, and December 31, 1943, the Maritime Commission reported this week. The group of tankers, constituting the most concentrated oil-vessel construction program in the country's history, involves a total outlay of $223,623,500.

Keel for the first of 72 high-speed tankers that the Maritime Commission is building at the Sun Shipbuilding & Dry Dock Co. yards in Chester, Pa., was laid July 15, exactly 7 weeks after the signing of contracts for the $194,400,000 project.

# CALENDAR OF EVENTS

### August

**MISSISSIPPI OIL EXPOSITION, Yazoo City, Miss., August 25-30.**

### September

**AMERICAN CHEMICAL SOCIETY, Atlantic City, N. J., September 8-12.**

**PACIFIC COAST GAS ASSOCIATION, annual convention, Del Monte, Calif., September 10-13.**

**NATIONAL PETROLEUM ASSOCIATION, thirty-ninth annual meeting, Hotel Traymore, Atlantic City, N. J., September 17-19.**

**SOCIETY OF AUTOMOTIVE ENGINEERS, national tractor meeting, Schroeder Hotel, Milwaukee, Wis., September 25-26.**

**NATIONAL LUBRICATING GREASE INSTITUTE, ninth annual meeting, Stevens Hotel, Chicago, September 29-30.**

### October

**WEST VIRGINIA OIL AND NATURAL GAS ASSOCIATION, annual convention, Clarksburg, W. Va., October 2-3.**

**NATIONAL FOREIGN TRADE CONVENTION, twenty-eighth meeting, Hotel Pennsylvania, New York City, October 6-8.**

**NATIONAL SAFETY CONGRESS, Stevens Hotel, Chicago, October 6-9.**

**TEXAS MID-CONTINENT OIL AND GAS ASSOCIATION, twenty-second annual convention, Beaumont, Tex., October 9-11.**

**AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS, Pacific section, Los Angeles, Calif., October 16-17.**

**AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, Petroleum Division, Dallas, Tex., October 16-18.**

**INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA, twelfth annual meeting, Tulsa, October 20-21-22.**

**SOCIETY OF AUTOMTIVE ENGINEERS, national fuels and lubricants meeting, Mayo Hotel, Tulsa, October 23-24.**

**CALIFORNIA NATURAL GASOLINE ASSOCIATION, Los Angeles, Calif., October 31.**

**AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, Southern California Section, Los Angeles, Calif., October 30-31.**

**SOCIETY OF AUTOMOTIVE ENGINEERS, national aircraft production meeting, Biltmore Hotel, Los Angeles, Calif., October 30-November 1.**

### November

**AMERICAN PETROLEUM INSTITUTE, twenty-second annual meeting, St. Francis and Palace Hotels, San Francisco, Calif., November 3-7.**

**SOCIETY OF AUTOMOTIVE ENGINEERS, West Coast transportation and maintenance meeting, San Francisco, Calif., November 5-6.**

**SOCIETY OF AUTOMOTIVE ENGINEERS, national transportation and maintenance meeting, Statler Hotel, Cleveland, Ohio, November 13-14.**

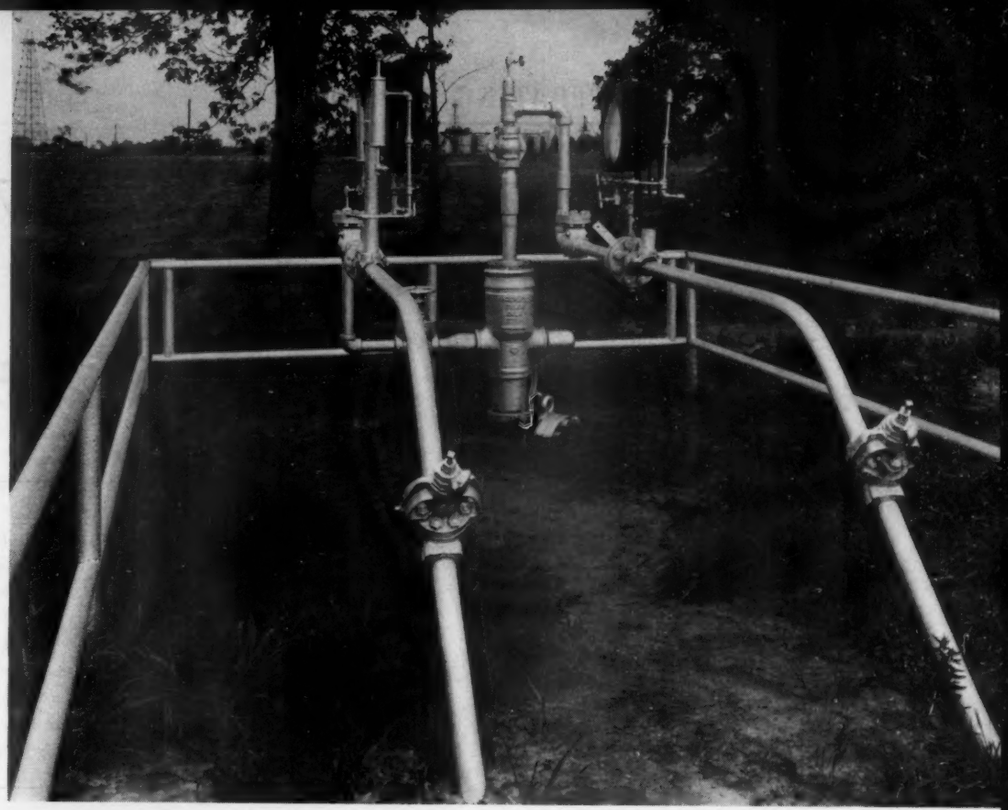
### December

**EXPOSITION OF CHEMICAL INDUSTRIES, eighth annual meeting, Grand Central Palace, New York, December 1-6.**

**NEW MEXICO OIL AND GAS ASSOCIATION, Artesia, N. M., December 3.**

**AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, Southeastern district meeting, New Orleans, La., December 3-5.**

**OKLAHOMA STRIPPER WELL ASSOCIATION, Tulsa, December 5.**



*In pressure-maintenance and repressuring operations, obtaining of optimum results is often made difficult by the lenticular nature of the pays; gas injected into the pay horizon of the input well may have no effect on an offsetting oil producer due to the pay lensing out. Where two pays exist, as at this injection well in the Lake Centralia field of Illinois, gas is injected into one pay through the tubing and into the other through the annular space between the tubing and casing.*

# ENGINEERING & OPERATION

## *In This Section*

JULY 24, 1941


FINISH 20 TONS OF WAX DAILY WITHOUT USING SWEAT PANS

By D. A. Young ..... Page 34

At its Houston, Tex., plant Sinclair Refining Co. recently placed in operation a methyl ethyl ketone dewaxing unit and wax-finishing equipment capable of turning out 20 tons of wax daily. The plant is unique in that use is made of multiple solvent dilution with dewaxed-oil recirculation in order to more completely rid the wax of oil. No sweating is used in the preparation of any one of a complete range of commercial melting-point waxes.

DERRICK-CARRYING PORTABLE RIGS SPEED DRILLING IN CALIFORNIA

By T. P. Sanders ..... Page 38

Two portable rigs in use in the Mount Poso and Kern Front fields of California carry their own derricks and can be moved to a new location and set up in as little as 5 hours. Both rigs, one using an 87-ft. standard derrick and the other a 90-ft. telescoping mast, were designed for 4,000-ft. drilling. While both are wheel-mounted, their design features afford an interesting contrast.

MECHANICAL ROTARIES USED FOR DRILLING NEW OKLAHOMA FIELD

By Harry F. Simons ..... Page 44

The Guthrie field of Logan County is undergoing the most intensive development of any Oklahoma field this year. The rigs used for this 5,400-ft. drilling generally fall within one of three classes with the two-engine compounded type being the most commonly used.

OPERATING IDEAS ..... Page 49

RECENT DEVELOPMENTS POINT TO WIDER USE OF CASING PUMPS ..... Page 50

CENTRAL LOCATION FOR PUMP-CONTROL SWITCHES ..... Page 50

PROGRESS IN METALS—By W. L. Nelson ..... Page 52

# Finish 20 Tons of Wax Daily Without Using Sweat Pans

By D. A. YOUNG
Assistant Superintendent, Sinclair Refining Co., Houston, Tex.

IN its Houston plant the Sinclair Refining Co. recently placed in operation a new solvent-dewaxing unit and wax-finishing equipment capable of turning out daily 20 tons of odorless, oil and moisture-free, high-melting-point, high-tensile-strength petroleum wax of unusual whiteness. Each detail in the operation has met with such success the company plans to early extend the capacity by 20 per cent. This can be accomplished easily, however, for extra space was provided when the unit was designed a year ago.

D. A. YOUNG

**Backed by 18 years of varied plant experiences in the Sinclair Refining Co. and a bachelor of science degree in chemical engineering from the Rose Polytechnic Institute, D. A. Young, assistant superintendent of the company's Houston refinery, reflects that understanding of men and materials so necessary these days to get the job done. Less than a year has passed since he was transferred from the company's Wellsville, N. Y., refinery to Houston to assist P. Kendall, superintendent. In that short time an unusually high degree of unselfish division of responsibilities has resulted. Before Mr. Young joined the Sinclair organization in 1923, he was employed for short periods at the Cambria plant of the Bethlehem Steel Co. located at Johnstown, Pa., and the L. & N. Railroad.**

## General Description

That portion of the new plant which separates the wax from the oil consists primarily of contact towers, refrigeration equipment, rotary wax filters, a solvent-reclamation unit and the necessary exchangers and control instruments to correlate the economic operation of the equipment. The wax-finishing plant essentially includes insulated agitators for chemically treating the wax, a deodorizing unit, a battery of heated percolating filters, a separate earth burner, wax chippers and presses.

The dewaxing plant utilizes a solvent mixture of the following approximate composition:

| | Per cent |
|---|---|
| Methyl ethyl ketone | 45 |
| Toluene | 15 |
| Benzene | 40 |
| | 100 |

For the sake of brevity, the unit is referred to as the M.E.K. plant. Other installations have been made which use this type of solvent, but the Sinclair plant is unique in that use is made of multiple solvent dilution with dewaxed-oil recirculation in order to more completely rid the wax of oil. No sweating occurs in the preparation of any one of a complete range of commercial melting-point waxes.

In routine operation the great bulk of the wax distillate is processed to meet the 130° F. to 132° F. melting-point specifications but commercial waxes of 160° F. melting point have been finished here commercially.

## Operation of Solvent Unit

The M.E.K. dewaxing unit has been designed to handle either 3,000 bbl. per day of neutral distillate, 2,500 bbl. of a heavy lube stock or 2,500 bbl. per day of a long residuum, all to be made from mixed Mid-Continent crudes.

The many steps taken in processing the wax distillate from the charge tanks to the packaging machines are clearly shown in the accompanying flow chart but for the sake of clarity the processing of a typical neutral distillate is briefly described here.

This waxy-oil neutral distillate is a product of the refinery's Badger vacuum still and has the following approximate characteristics:

| | |
|---|---|
| Gravity | 26.4 |
| Flash, °F. | 400 |
| Fire, °F. | 465 |
| Viscosity at 100° F., seconds | 170 |
| Pour point, °F. | 100 |

It is pumped from storage at about 130° F. and is mixed with the solvent as it passes through a ratio flow-controller. The proportion of solvent and oil is predetermined and may be varied over

*Side view showing heaters, $CO_2$ generator, solvent contact equipment, compressor building and $CO_2$ gas holder*

a wide range but the initial mixture usually contains about equal parts of solvent and distillate.

This mixture passes through a heated zone to insure most intimate contact between the oil and solvent. The temperature needed to effect this contact varies with the oil itself but in the case of the typical neutral distillate, approximates 140° F. If a heavy distillate or long residuum is to be dewaxed, the temperature maintained at this point is about 160° F.

After sufficient heating has been accomplished to assure an intimate contact among the oil, wax and solvent, the mixture passes through a series of ribbon-type exchangers where much of this heat is given up to the dewaxed oil coming from the filters as the two pass countercurrent through these exchangers. From here the mixture enters the direct-expansion ammonia chillers where its temperature is reduced to about —15° F.

Refrigeration is supplied by two ammonia units, each capable of producing 200 tons daily. The ammonia gas is compressed in two stages, each compressor being driven by a 450-hp. synchronous electric motor. Pipe connections are provided in the system at this point so that more solvent can be injected into the stream ahead of the chillers or immediately following. By controlling the quantity of secondary solvent to be added, the best relationship between the volume of distillate and solvent can be established. The objective, of course, is to provide the highest yield of wax for a given raw charge. An important factor in balancing the economics of the operation is the extent of recirculating the dewaxed oil. At this point it is interesting to note that recirculation of a portion of the dewaxed oil is always found to be advisable. Inclusion of some dewaxed oil in the raw stream tends to improve the formation of wax crystals throughout the entire body and makes their separation and removal more complete in the rotary filters which follow.

However, before this mixture enters the filters for separation of the wax and oil, it first goes to a feed tank in which a constant hydrostatic head is maintained. By maintaining this constant liquid level, it is practicable to control the filter operations within a very narrow pressure range and thereby bring about the best operating conditions.

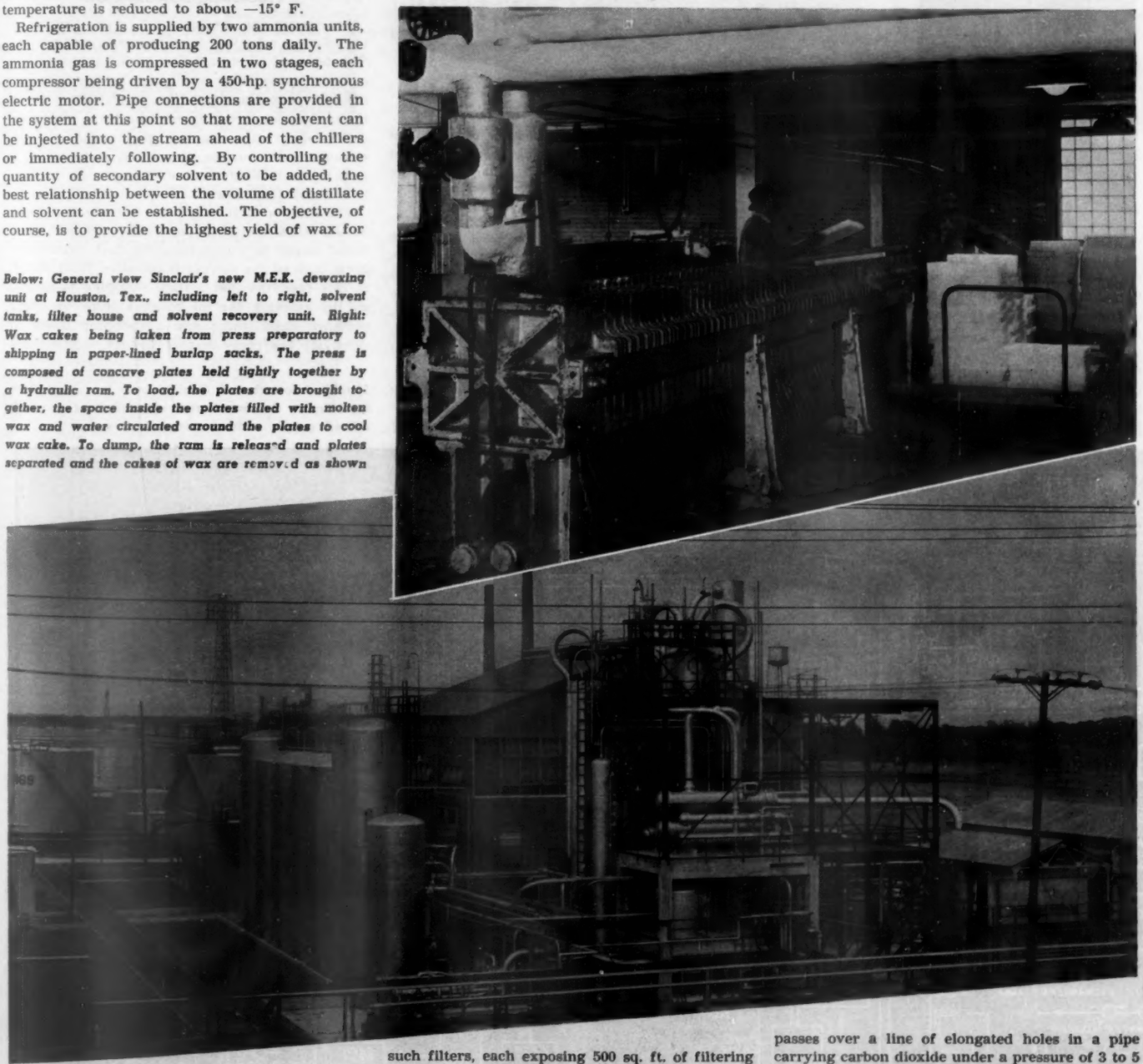
### Rotary Vacuum Filters

The filters referred to here are of the rotary-drum type and operate with approximately 50 per cent drum submergence. The plant includes four such filters, each exposing 500 sq. ft. of filtering surface.

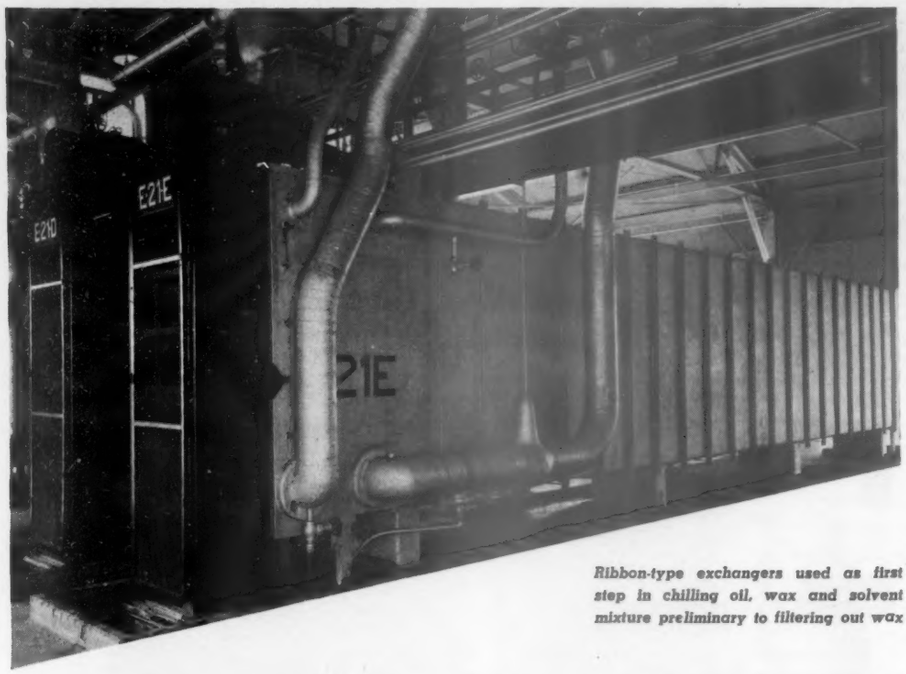
The cold mixture of oil, wax and solvent coming from the feed tank to these filters is held at about —15° F. temperature and due to the liberal use of insulation, this is the approximate temperature of the mixture in the lower half of the filter and through which the drum rotates. In operating the filter, a reduced pressure is maintained inside this revolving drum. The periphery of the drum is covered with a canvas blanket supported horizontally to form a rounded surface.

Inside the drum several compartments radiate from the central shaft so as the canvas-covered drum revolves, it builds up a wax film throughout the lower half of the revolution. The wax-freed oil passes through the canvas but the wax is held back. Then, as the film moves past the level of the liquid in the filter, it is sprayed with a cold solvent. This rids the wax film of adhering oil. The oil-free film is then continuously scraped from the surface of the canvas as it comes in contact with a horizontal arm.

Just ahead of the scraper the canvas drum passes over a line of elongated holes in a pipe carrying carbon dioxide under a pressure of 3 to 5 lb. per sq. in. Some of this gas passes through the canvas against the wax film and because the wax film is almost impervious, the gas lifts the wax film from the canvas and thereby makes it easier for the knife edge of the scraper to remove the firm. From the scraper the wax drops to



*Below: General view Sinclair's new M.E.K. dewaxing unit at Houston, Tex., including left to right, solvent tanks, filter house and solvent recovery unit. Right: Wax cakes being taken from press preparatory to shipping in paper-lined burlap sacks. The press is composed of concave plates held tightly together by a hydraulic ram. To load, the plates are brought together, the space inside the plates filled with molten wax and water circulated around the plates to cool wax cake. To dump, the ram is released and plates separated and the cakes of wax are removed as shown*




*Ribbon-type exchangers used as first step in chilling oil, wax and solvent mixture preliminary to filtering out wax*

a screw conveyor and then into wax pots.

Here it should be mentioned that three pressure adjustments may be made inside the drum to influence the completeness of the separation of oil and wax. Briefly stated, if the wax cake tends to become too thick as it builds up in the submerged section of the drum, the pressure differential between the inside and the outside of the drum is reduced. If the cake remains thin, the pressure differential is increased. This adjustment is necessary since the thickness of the film influences the thoroughness with which the oil can later be washed from the wax cake. Also, by adjusting the volume of solvent sprayed on the wax film at this point or by adjusting the vacuum in the washing compartment, the optimum volume of solvent is pulled through the wax film and the job of deoiling is accomplished with the greatest efficiency.

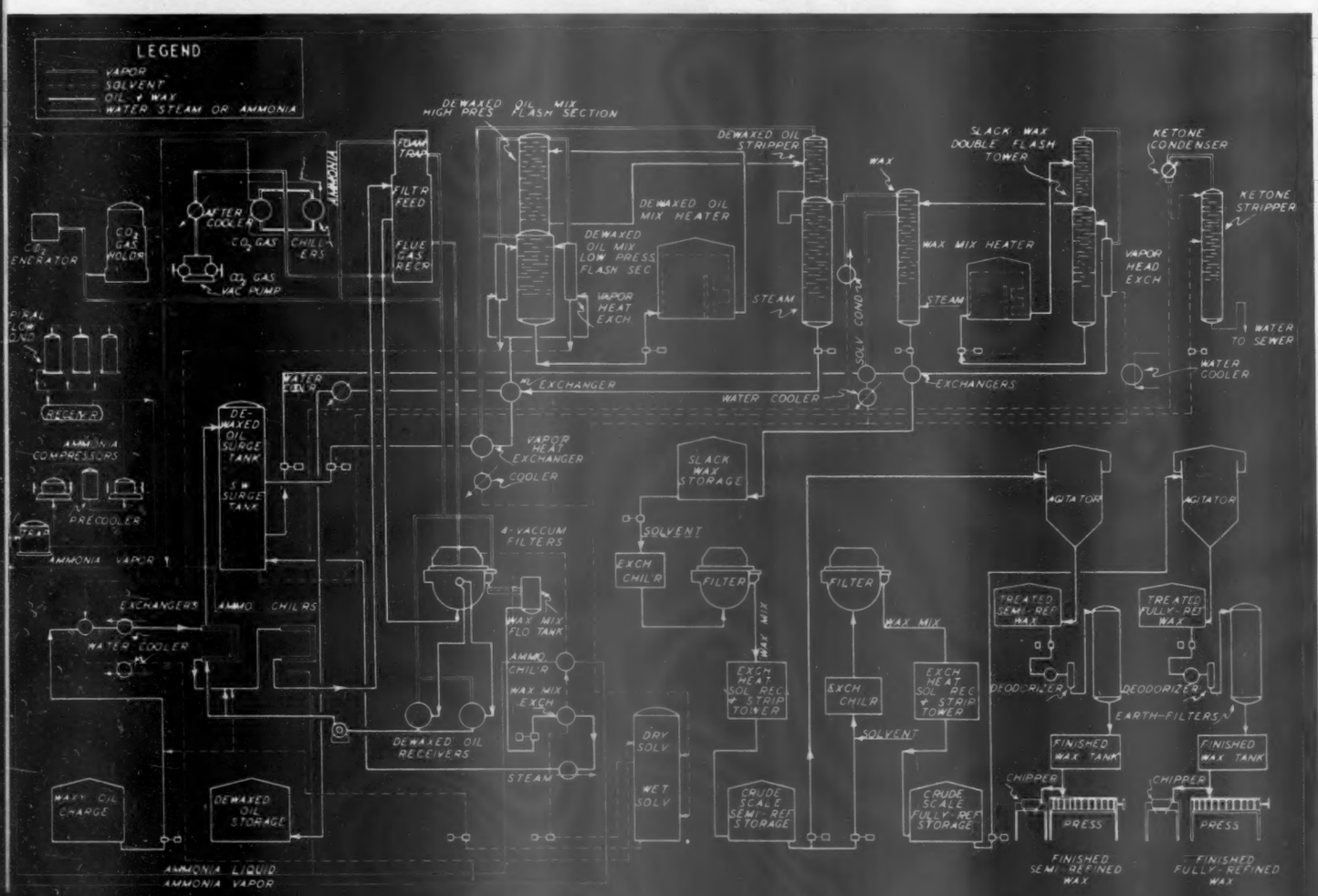
From this point the operation is divided into two parts, the processing of the wax-free oil to make neutrals and the further processing of the wax to make crude-scale or a fully-refined product. In each instance, however, the first step in the operation is to recover the solvent from the oil and the wax coming from the filter.

An added feature in the solvent dewaxing plant is the carbon dioxide generator which provides a blanket of inert gas throughout every part of the system in which an explosive mixture of solvent vapor or oil vapor and air could occur. The unit provides for the continuous circulation of the inert gas through the system and whenever the concentration of oxygen reaches 10 per cent, the system is purged and a new supply of carbon dioxide gas is injected. The check on the oxygen content of the gas is made every 24 hours, or less. If repairs are made to the system, the check is made more frequently.

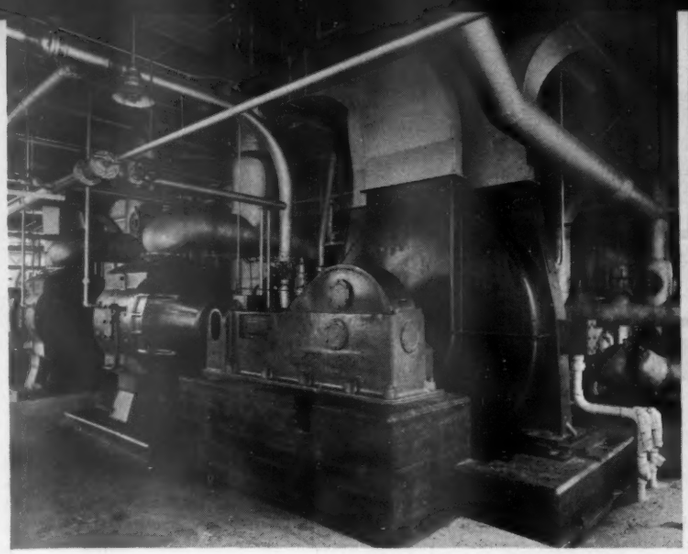
## Processing Dewaxed Oil

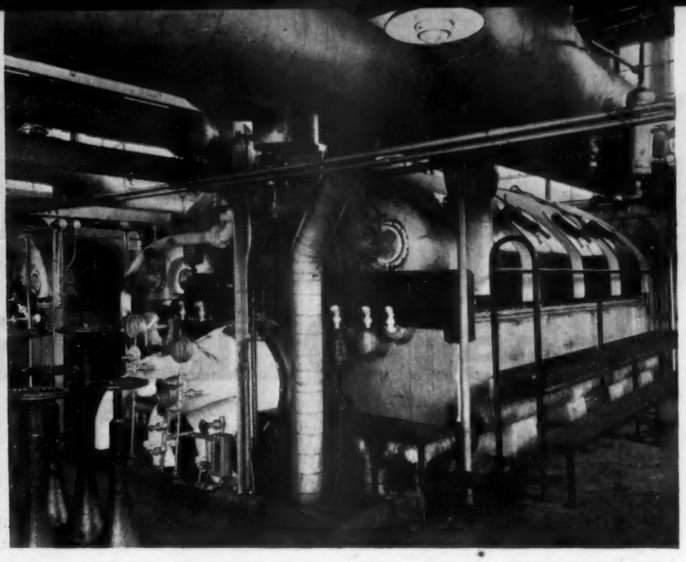
Processing the dewaxed oil is the simpler of the two but relatively large volumes are involved. The dewaxed oil stream first passes into receivers or surge tanks from which it is pumped through ribbon-type exchangers. Here it absorbs some of the heat of the incoming raw charge as mentioned previously. After leaving the exchanger the stream enters another surge tank from which it is pumped through heat exchangers on its way to a double-flash tower.

The solution first enters the low-pressure tower in the series and then passes through a conventional heater to a high-pressure flash tower. The great bulk of the solvent is removed from the oil in this operation but a final stripping is carried out by running the oil bottoms from the high-pressure flash tower into a stripping tower of relatively low pressure and through which steam




*Simplified flow chart of Sinclair's new wax plant showing steps in the manufacture of semirefined and fully refined grades without using sweat pans*





*Left: Part of the $CO_2$ and cold-oil circulating equipment. Right: Two of the four vacuum filters used to remove wax from the oil solution. Inside this shell a partially submerged canvas-covered drum slowly revolves. A reduced pressure inside the drum causes the oil to pass through while the wax is retained on the canvas. Later in the revolution the wax film is carried past washing sprays and then is removed as it passes a horizontal scraper*

is passed. This operation removes even the slightest quantities of solvent from the dewaxed oil and the latter then passes through exchangers and coolers to storage.

The solvent, of course, is recovered as overhead from this series of towers and is liquefied, cooled and sent to storage for further use. The control of this operation is regulated in accordance with changes in the Pensky-Marten flash on the bottoms from the strippers.

The water introduced into the solvent-recovery system as steam also contains some solvent, but the latter is recovered into a separate ketone stripping tower as shown on the flow diagram. The ketone is distilled from the water and is sent back to solvent storage while the water is continuously withdrawn to the sewer. As the crude wax drops out of the rotary filters it is contaminated with solvent and carries with it a trace of oil. The quantity of each is held to a minimum for any given throughput and of course the degree of oil contamination is a function of the washing done in the filters.

From here the degree of further refinement depends upon whether the wax is to be sold as "semirefined" or "fully refined." In either instance, however, the base material is freed of volatile materials by passing it through a two-stage distillation unit similar in design and operation to that mentioned earlier in connection with recovering the solvent from the dewaxed oil.

The slack wax which results from this stripping operation is run to intermediate storage and then is processed through a rotary vacuum filter for the second deoiling operation. This is done in lieu of the conventional sweating. The operation is essentially a duplication of the previous procedure of adding solvent, chilling, filtering and collecting the deoiled cake.

However, in processing the slack wax through the M.E.K. plant this time, a much higher ratio of solvent to wax is used. In the three steps, during which the solvent is added, the volume of solvent used becomes equal to 15 times the volume of slack wax charged.

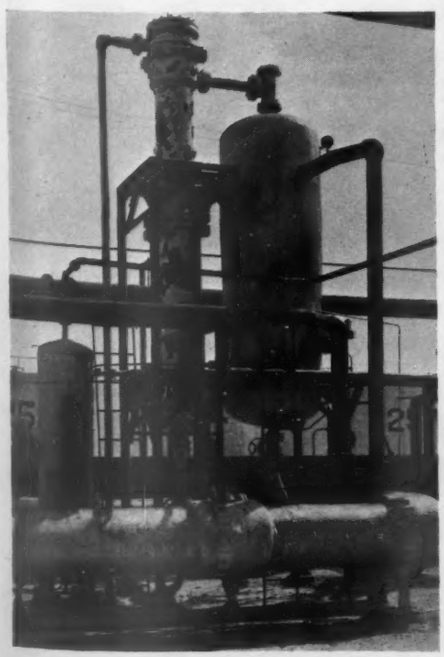
The solvent, of course, is recovered in an operation as described previously. The resulting wax is classified as "crude scale" or "semirefined."

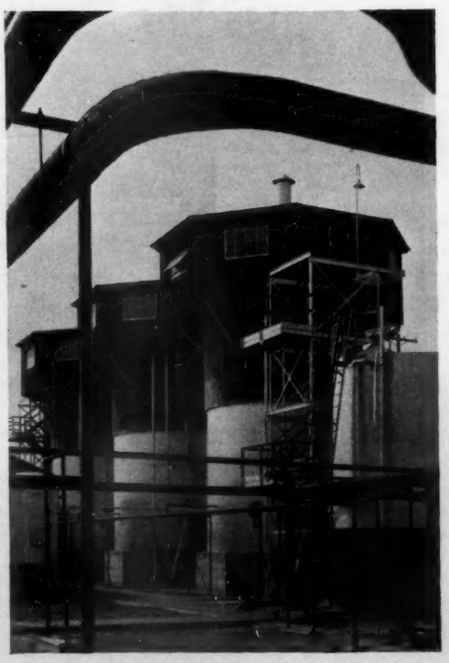
If the wax is to be offered as finished semirefined, it is run to an insulated agitator where it is treated at 160° F. with 10 lb. of 66 Be. sulfuric acid per barrel of wax. Then it passes to a second agitator, or wash tank, of similar construction, where it is neutralized with 5 Be. caustic and then water washed until caustic free. There are two wash agitators so that two batches of acid-treated wax can be neutralized and water washed at the same time. From these water-wash agitators, the wax is pumped to treated storage tanks and from there it passes through a deodorizer and then to fuller's earth filters.

The deodorizer is unique in the oil industry, but is considered necessary for the manufacture of odor-free wax. The equipment consists essentially of a small bubble tower for contacting the wax with superheated steam at about 350° F. This unit operates under vacuum for the purpose of removing objectionable odors. The steam vapors carry out a small percentage of odor-containing material.

A picture of the unit is shown here. This equipment handles adequately any volume of wax which might be processed in the plant at present and rids the product of even the slightest trace of solvent or oil odor.

From the deodorizer the molten wax is percolated through earth and run to storage for subsequent shipment in tank cars, in barrels or as cakes or slabs.





*Left: Deodorizer in which wax is heated to 350° F. to remove every trace of solvent or oil odor. Above: Insulated agitators in which the wax is treated with acid, sprayed with water and given a light caustic wash*

## Fully Refined Wax

If the wax is to be sold as a fully refined product it is withdrawn from the untreated semirefined storage and sent back to the M.E.K. plant for the third solvent processing. On its way it passes through the conventional ribbon-type exchangers and chillers and after leaving the rotary filters the solvent is, of course, recovered and the wax stream is run to the chemical agitators where it undergoes a sulfuric acid treatment, a caustic wash and a final water wash, the same as on the semirefined grade. Following this treatment, the wax is deodorized, filtered by percolation and is then available for shipment as fully refined wax.

The two grades of finished wax are available for shipment in tank cars, wooden barrels or in slabs or cakes packed in cotton-lined or paper-lined burlap sacks. The manner of shipment is decided by the customer and facilities are provided for handling the wax through this portion of the operation twice as fast as it is produced. The chippers and wax molds can easily handle 50 tons of wax per day. The greater portion of the wax is molded into cakes of approximately 11 lb. each and the required number of these cakes are packaged together inside a burlap sack.

The design and construction of the dewaxing and wax-finishing equipment was performed by the Lummus Co., under the supervision of Sinclair engineers.

# Derrick-Carrying Portable Rigs Speed Drilling in California

By T. P. SANDERS

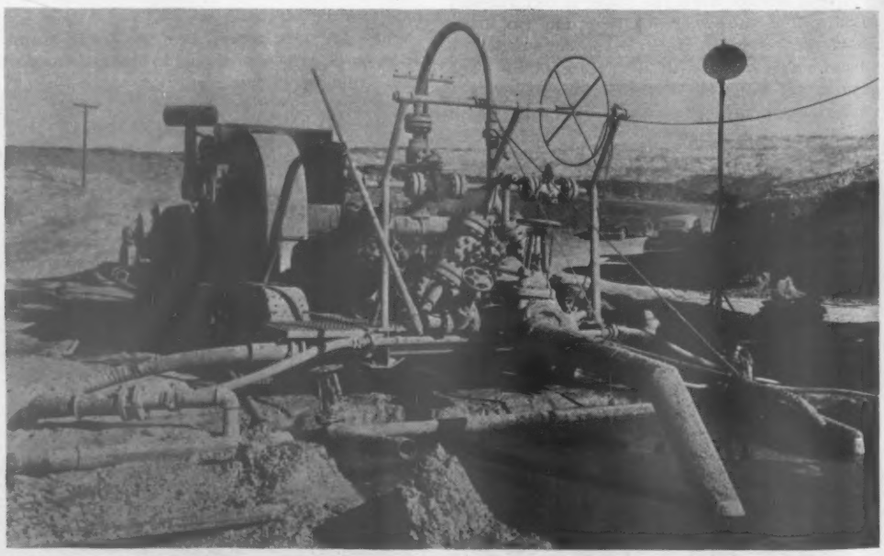
NOT long ago a "portable drilling rig" was any rig so designed that it could be broken down into a number of skid-mounted or wheel-mounted units for easy transportation. It consisted only of the drilling machinery, as the derrick or mast was furnished separately. Now it appears that the rig of the future, to warrant the term "portable", must carry its own derrick. This derrick, together with the hoist and engine, must form a single-wheel-mounted unit.

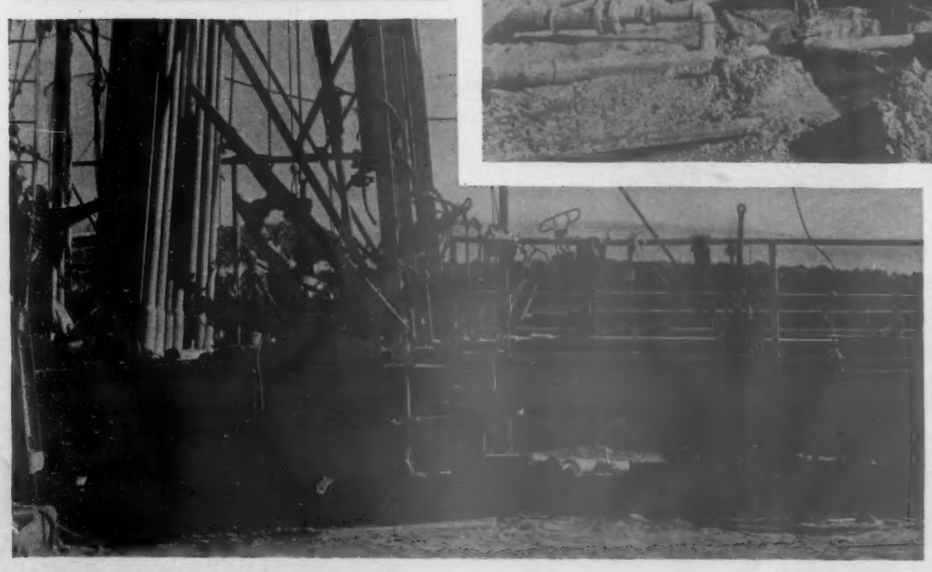
Two portable rigs answering this revised description have been working in the same field of California. While they are both wheel-mounted and each carries a derrick, they make an interesting contrast in other respects. Since both have proved highly successful, they must be compared as to design features rather than by performance.

One rig was designed and assembled by the drilling department of Shell Oil Co., Inc., using trailers built by Hopper Machine Works. In late years the Shell organization has become famous in the San Joaquin Valley for the new methods it has introduced for handling heavy equipment. Its largest rigs and derricks are skidded intact from one location to the next, and the derrick corners are set on timber mats rather than upon concrete. The wheel-mounted rig is another step in Shell's evolution of rig-moving practice. The new rig has drilled nearly 20 wells in the Mount Poso field near Bakersfield and five wells in the Capitan field on the coast above Santa Barbara, all within 5 months' time.

The other wheel-mounted rig which has been at work in the Mount Poso field was built by Hopper Machine Works to specifications of General Petroleum Corp.'s drilling department. Since May 1 it has completed 10 Mount Poso wells and has now been moved to the Kern Front field where eight locations are being made ready for its occupancy.

Chief difference between the two rigs is in the derricks. The Shell derrick is a standard-type 87-ft. steel structure mounted on an 18 by 18-ft. base which is made of steel I-beams and covered with wood flooring. Beneath the floor at each corner, track-laying wheels are bolted to the frame. The derrick in upright position, with the hoist, engine and the engine house, is moved as a unit, being drawn by a tractor. The General Petroleum rig, on the other hand, has a 90-ft. telescoping derrick which folds over the engine and draw works so that the rubber-tired unit can be pulled by a truck. While the Shell rig maintains the standard derrick which all drillers have become accustomed to, it offers certain limitations in regard to moving. Its width does not allow highway transportation and its height makes it necessary to consider power lines and other overhead obstacles.





*Left: Looking up derrick of General Petroleum Corp. rig, showing arrangement of pipe rack and finger board. Below, left: Shell Oil Co., Inc.'s 87-ft. derrick is moved erect on these wheels. Note how the I-beams are joined for easy dismantling. Water, fuel, mud, and cement lines remain in place during moving. Below: Connection on Shell's wheel-mounted power pump used in Mount Poso field. Lines for standpipe, mud-mixing hopper and mud gun remain in place when moves are made*

### Shell Rig

Since it is necessary to dismantle the Shell rig when it is transported from one field to another, the equipment has been designed so that it can be unbolted to form sections 8 ft. in width that can easily be loaded on trucks or freight cars. However, the rig was not intended for scattered drilling where moves

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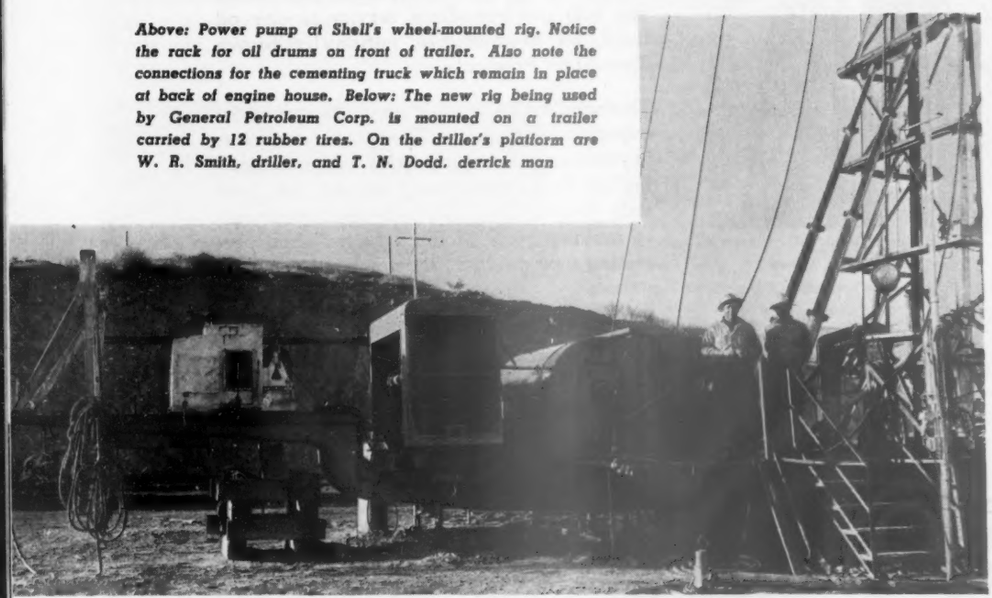


*Above: Power pump at Shell's wheel-mounted rig. Notice the rack for oil drums on front of trailer. Also note the connections for the cementing truck which remain in place at back of engine house. Below: The new rig being used by General Petroleum Corp. is mounted on a trailer carried by 12 rubber tires. On the driller's platform are W. R. Smith, driller, and T. N. Dodd, derrick man*

of this kind would be necessary. It was intended for long drilling campaigns in shallow fields of great areal extent where moves of several hundred feet are bound to be frequent. For service of this kind no details have been overlooked. The rig fits into a complete plan for orderly development of a field.

In line with usual California practice, the first step in this development plan calls for building a good oiled road to the new location. Then, after the necessary leveling, a small concrete cellar is made. A short length of 20-in. conductor pipe, belled at the top, is cemented into the center of the cellar floor. These preparations are all made while the rig is still busy at the old location. Thus no rig time is wasted.

The rig, with derrick erect, is next drawn in by a tractor. The front trucks under the derrick-hoist-and-engine unit are spaced closer together than the back trucks so that the heavy unit can be turned around in a comparatively small space. After the derrick is placed in position, the corners are jacked up and small substructures resting on timber mats are used to take the weight off of the wheels while drilling. The substructures at the draw-works side of the derrick are designed so that they can be folded in two pieces under the floor.

With the derrick leveled up, the rotary table is accurately centered over the cellar by means of adjustable set screws. The crown block is then shifted slightly to line up with the table setting. The steel stairways for the derrick floor and engine house, which are raised out of the way during moving, are dropped into position.

When the mud-discharge line from the well is connected up, no welding is necessary. A nipple with the mud spout in place is inserted inside of the 20-in. conductor, and a rubber ring is used as a packoff. Since the wells are brought in as pumpers and no gas zones are encountered, this system proves satisfactory in the Mount Poso field.

The 7¼ by 14-in. power pump, with its 185-hp. engine, speed reducer and V-belt drive, is mounted on a structural steel frame supported by track-laying wheels. Built onto the front of this pump unit is a convenient rack upon which the drums of lubricating oil are carried. Both mud lines and cementing lines are permanently mounted on the derrick-hoist unit, so that very little connection work is necessary either in connecting up the mud pump or the cementing truck.

The hoist is a single-drum machine with friction clutches and air-controlled cathead which is driven by a 185-hp engine using butane. Ten speed ratios are provided.

Most of the wells drilled to date with the new Shell rig have been about 1,900 ft. deep, but the rig is designed for all work up to 4,000 ft. Four inch drill pipe is used and the Mount Poso wells are completed with 8⅝-in. combination strings of casing, as it is considered likely that large-volume electrical pumping equipment may be installed when water production becomes heavy.

### General Petroleum Corp.'s Rig

The wheel-mounted drilling rig being used by General Petroleum Corp., like the Shell rig, is built to drill wells to 4,000 ft. in depth with 4-in. drill pipe. Using 3-in. pipe there is racking capacity for a 5,000-ft. string. The derrick, hoist, and engine are mounted on an alloy-steel semi-trailer carried by 12 rubber tires. The trailer, with equipment in place, comes within the trucking limitations set by the California road laws, although it approaches within 30 lb. the weight limitation of 68,000 lb. gross, and its width of 8 ft. and height of 13½ tf. are the maximum dimensions for road travel.

Since it meets highway requirements, the rig can be transported easily for either long or short distances. The drilling campaign, which is being carried on ceaselessly with this rig, has been organized to make the most of the rapid moving ability. Procedure is as follows:

As soon as the combination string has been cemented at a location, the power-pump unit is moved away so that it can be connected up at the new drilling site. Like the derrick-hoist unit, the pump and its engine are mounted on a semi-trailer carried by rubber tires. The pump is a 7¼ by 14-in. unit driven by a 185-hp. engine which is equipped with carburetor for utilizing butane. The steel mud tank is carried on the truck while the pump trailer is being towed.

The derrick-hoist unit remains at the completed well in order to run tubing and rods. Since the wells are brought in as pumpers, the slush pump is not needed for bringing in wells. As soon as the well is on the beam, the rig is made ready for moving. The floor is broken down into 8-ft. sections that can be carried on the truck. The top section of the derrick is unbolted so that it can be lowered by means of a power-driven wire-line winch until it is telescoped inside of the lower section. Hydraulic rams are then operated to lower the derrick to a horizontal position on top of the hoist and engine. Blocks and drilling line stay in the derrick during all moves within a field. The same truck which pulled the pump trailer to the new location returns for the derrick unit.

After centering and leveling the rig at the new location, the floor is quickly assembled. The rotary table is simply turned around 180° to drill the rathole. This avoids forcing the rotary drive chain out of line. The hoist is a double-drum machine which spools both the drilling line and the coring line. It is powered by a 185-hp. engine fueled with butane. A small engine is installed on the tongue of trailer: This operates the hydraulic rams for raising the derrick and also runs the wire-line winch which extends the structure.

Since the General Petroleum rig will handle 16,000 ft. of small-sized tubing, it is to be used for servicing the 11,500-ft. Rio Bravo wells when work of this kind becomes necessary. Its ability to move rapidly and without restrictions on the highways favors its use for such service. However, as long as the deep San Joaquin Valley wells continue to flow, the rig will be used exclusively for the drilling of shallow wells.

Both of the new drilling rigs were designed primarily to reduce moving expense. Success in this respect can be judged by the fact that either rig can be moved to a new location and set up ready for drilling in as little as 5 hours after the drill pipe has been laid down.

# Operating Ideas

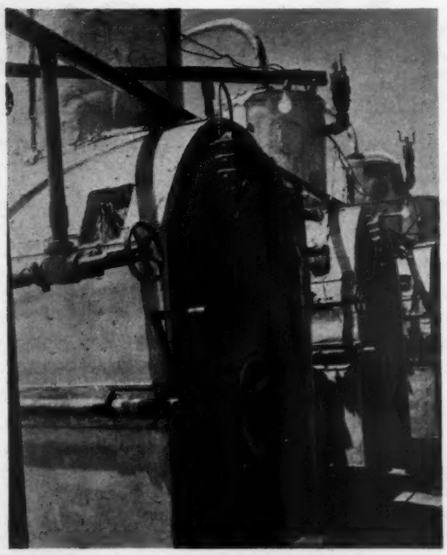
## Detachable Support for Aboveground Lines

Provision for expansion shifting, as well as for removal or renewal of the pipe, is afforded by a method of support used by one company for carrying elevated lines. Two uprights of 2-in. pipe are supported, the proper distance apart, in a concrete footing, and cut to the desired level after being cast in place. Across these two pipe legs is a short steel strap, through which have been burned two holes about 1 in. in diameter, and spaced to include the diameter of the pipe to be carried. Staples of ¾-in. sucker rod, are slipped over the line and down into the 2-in. pipe legs.

## Guard for Shaft on Drilling Engine

The end of the shaft on a drilling engine, carrying a projection some 4-in. beyond the usual end of the case or housing, was more or less exposed to accidental damage. Therefore a shield, formed from half of a casing protector, cut on a diameter, was welded to the housing so as to form a hood over the shaft end. The formed rim of the protector affords strength enough to guard the shaft against damage in handling between jobs, while the space below the shield permits the shaft end to be used for any auxiliary drive desired.

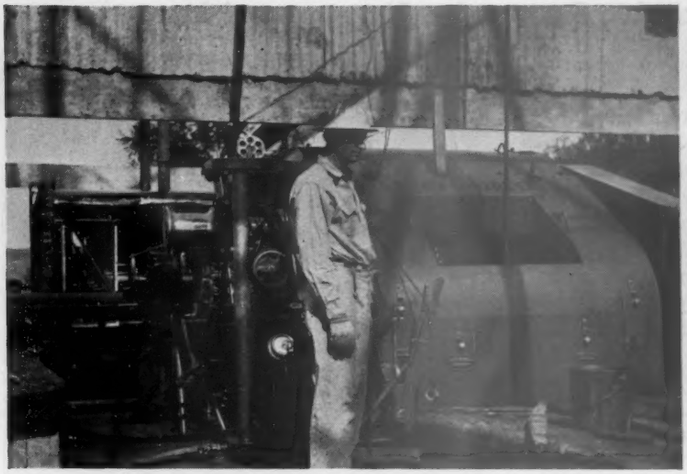
## Needle Valves Balance Boiler Feed Water

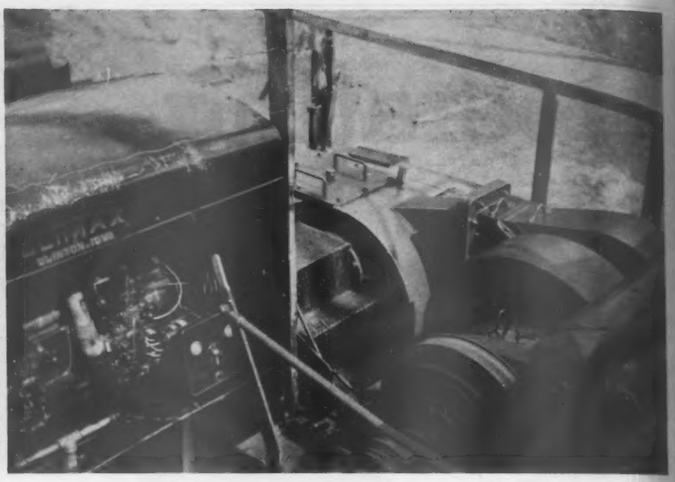


Supplanting the welded-in bypass in the line carrying feed water to the individual boilers, in which a ½ to ¾-in. valve was used to permit closer regulation of each boiler's water supply, specially fitted needle valves now give the desired fine regulation, and stand up satisfactorily under the severe service at that point. Elimination of the bypass reduces the number of possible joints to spring leaks, and enables the one large valve to be used alike for quick filling of a boiler, or the maintenance of a desired level under widely varying steaming rates.

## Belting Used to Pump Water Well

Wells providing water for lease purposes are generally operated off the back side of the pumping unit used to lift the oil. The accompanying picture shows an unusual installation of this type. Instead of using a jack over the water well, one operator employs a stroke post and a pulley mounted on a pair of 6-in. pipes. A section of 6-in. belting is used over the pulley between the pull rods and the polish rod. Length of the stroke is 30 in.





*Left: Rig powered by two six-cylinder engines driving an eight-speed draw works. This is the style rig most commonly used in the drilling campaign at Guthrie, Okla. Right: Part of compounding arrangement and the reversible clutch on rig at Guthrie. The chain guards are dustproof and the chains run in oil*

# Mechanical Rotaries Used for Drilling New Oklahoma Field

By HARRY F. SIMONS

DEVELOPMENT on the largest scale found this year in Oklahoma is taking place at Guthrie where at the present time about 10 rigs are grinding away seeking the pay in the second Wilcox sand at approximately 5,400-50 ft. The biggest part of the field is located in 1-17n-1w, Logan County. Practically all of the drilling is being done on a turnkey basis with the contractors furnishing the derrick, casing, etc. As these are standard items, the only place for the contractor to improve his profit is through savings in drilling costs. Thus considerable thought is being given to increasing the bit performance at this time.

The rigs used, while not identical, all fall within one of three classes. The most commonly found rig at Guthrie is the two-engine compounded type with the engines setting one behind the other between the draw works and pump. The engines can be run separately with the front one driving the hoist and the rear one the pump; at Guthrie the engines are generally run compounded while drilling to obtain enough speed on the pump and rotary table. Engines on all of these rigs use butane for fuel.

Fain-Porter Drilling Co. has two and Fain Drilling Co. another rig which are practically alike. All have the same type engines and the same type draw works and pump. The two engines are six-cylinder, 165 hp. each. The compounding arrangement is chain driven, with dustproof guards. The pump has a 14-in. stroke with a 6½-in. liner. The hoist has eight speeds on the drum shaft and four speeds to the rotary table, and was designed for use with internal-combustion engines. Derrick equipment consists of a three-sheave traveling block and a four-sheave crown block. These rigs have a depth capacity of 6,000 ft. with 4½-in. drill pipe.

Parker Drilling Co. has one rig and Olson Drilling Co. two rigs which are similar in engines and compounding arrangements, but the hoists are slightly different. V-belts are used for the compounding on these three rigs. The two engines used on each rig are six-cylinder, 185 hp., 7 by 7-in. butane engines equipped with small gasoline engines for starting. All of these rigs have four-sheave traveling blocks and five-sheave over-and-over crown blocks.

The hoist on one of these is a three-speed draw works with two 7-in. shafts while the others are four-speed hoists with three 7½-in. shafts. Depth capacity is around 6,000 ft. with 4½-in. pipe.

Big Chief Drilling Co. has a rig which was especially designed for use with internal-combustion engines and it has eight speeds on the drum and four speeds on the rotary table. It is powered by two 165-hp. six-cylinder butane engines. The hoist and derrick equipment have a depth capacity of around 7,000 ft. with 4½-in. drill pipe.

### Diesel Equipment

Parker Drilling Co., Fain Drilling Co. and Mac & Stauffer Drilling Co. are each operating a diesel rig at Guthrie. Parker's diesel has two 225-hp., six-cylinder, marine-type engines setting in an opposed position parallel to the draw works but on a lower level. As both are right-hand-drive engines, the tail shafts drive into a gear box. The reversible clutch is air controlled. Hoist has three speeds and the pump used has a 15-in. stroke. The water for engine jackets is cooled in a tower and stored in a tank. The arrangement of the engines allows for compounding or for individual driving of the pump and hoist.

The other two rigs are almost identical and both are equipped with two twin-cylinder, horizontal-type diesel engines with one driving the hoist and the other the pump. Both rigs are equipped with three-shaft, four-speed hoists but one of them has a dual-chain drive on the reversible clutch, thus providing eight speeds on the drum and two on the rotary table. Cooling towers are used for the engine-jacket water. Derrick equipment is similar to the other rigs but slightly heavier.

As most of the work in the field is being done one a turnkey basis, the contractors are furnishing the derricks. The companies have insisted, however, that a high substructure be used so that the connections need not be placed in a cellar but will be only a little below ground level. The substructures are set on 26 by 26-ft. concrete bases with heavy corners. The derricks are moved off immediately after completing the well.

All of the rigs use 4½-in. internal upset drill pipe for making the hole down to the point where the pay string of 7-in. casing is run. For completion a string of 3½-in. internal upset drill pipe is used. Some contractors carry a few joints of 6⅝-in. drill pipe for making the approximately 300 ft. of 12¼-in. surface hole in which is run the 10¼-in. pipe. Size of hole drilled below the surface pipe is either 8¾ or 9-in. to total depth (5,450 ft.). The 7-in. run in the hole varies from 22 lb. per ft. to 28 lb. per ft., depending on the operator. Some of the strings have been composed of 45-ft. joints while others have used the shorter 30-ft. pipe. The pipe in the pay string may be either seamless or welded. The same is true of the surface strings where either seamless or welded pipe may be used.

### Drilling Conditions

Drilling conditions encountered are not unusual for Oklahoma fields of similar depth. There is little difficulty in keeping the hole straight providing the drillers do not apply an exorbitant amount of weight. As high as 20,000 lb. weight on the bit has been used successfully. Practically every contractor in the field uses a different type

*(Continued on Page 48)*

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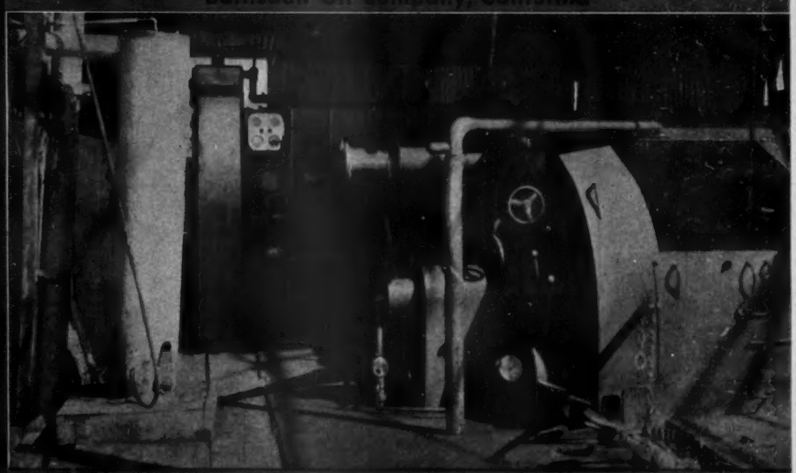
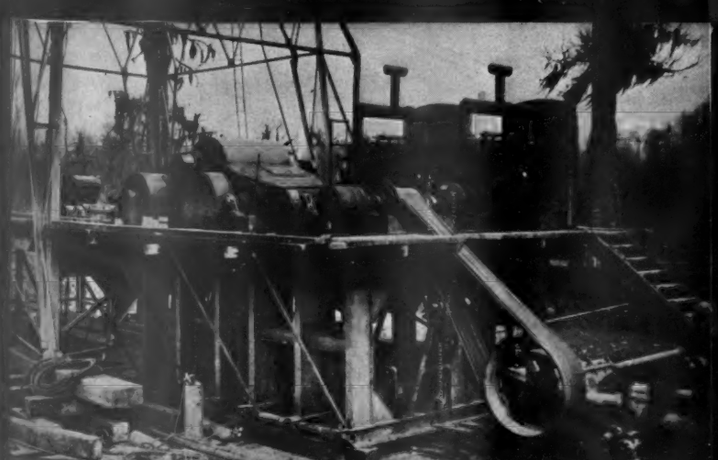
Type 125 Consolidated Rig Installation, Barnsdall Oil Company, California



Type 75 Consolidated Rig Installation, West Texas



Type 75 Consolidated Rig Installation, Bayou Blue, Louisiana

Type 50 Consolidated Rig Installation, near Wichita Falls, Texas

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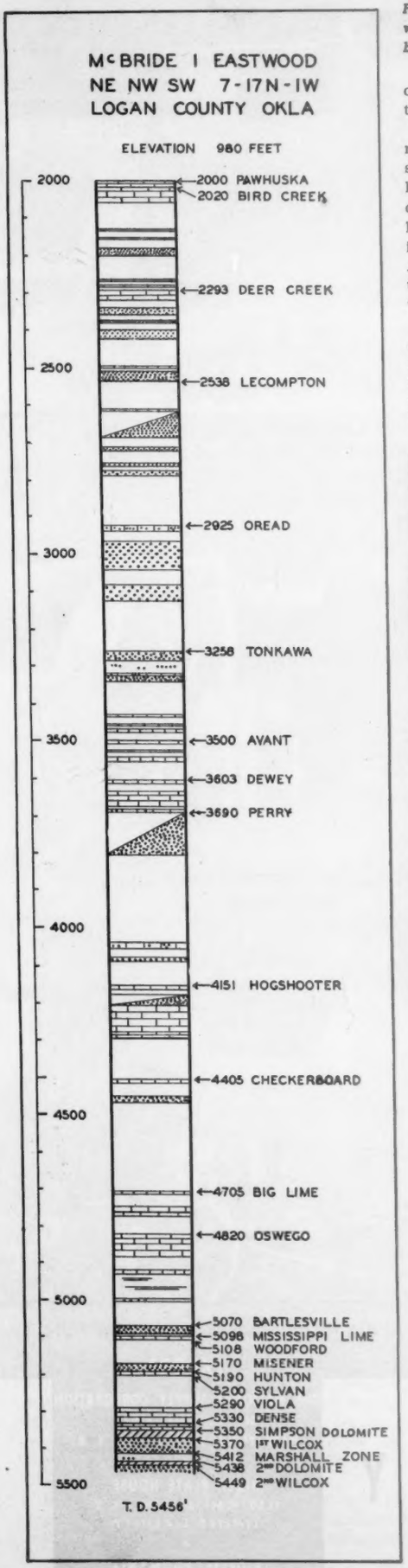


*Fig. 1 (left)—Electric log of the discovery well, showing tops of the various formations below the Pawhuska*

of vertical deviation indicator and nearly all of the various methods can be seen at Guthrie.

The formations drilled through are those ordinarily encountered in Oklahoma and consist of shales interspersed with water sands and some limestones down to the Ordovician where limes, dolomites and sands predominate. These drill fairly well with the weight allowed, although there is enough sand to wear the tool joints appreciably. An electric log of the discovery well, below the top of the Pawhuska, showing the tops of the various formations, is given in Fig. 1.

Noticeable decreases in the rate of penetration are found at around 3,500 ft. where there is a lime section, at 3,900 ft., 4,800 ft. and 5,020 ft. Below 5,300 ft. the going is quite slow due to the predominantly hard formations. Cutting rate to 5,000 ft. averages around 16.5 ft. per hour for the time spent on bottom. This varies from the 41-ft.-per-hour average for the first bit to 5 ft. per hour for the bit run at a depth of 4,000 ft.

*Above: Keeping mud thin while drilling the upper part of the hole is one of the practices to increase bit footage and decrease drilling time. Note that approximately 1½ ft. of mud has been jetted from the pits. Right: Cellar connections used while swabbing in a well at Guthrie. Line going to right leads to the pits while line to tankage can be seen going to the left with the adjustable choke projecting out to the right*

Number of bits used runs from a low of 29 8¾-in. bits to over 40 9-in. bits. Some contractors have tried running different types of bits to suit the formation, but the hole drilled with the fewest bits used only two types. The two bits run immediately under the surface pipe were designed for soft digging and the remainder to the bottom of the hole were designed for use in alternating formations. While searching for the ideal bit combination, contractors are also increasing the capacity of the pumps by using larger liners as an aid to increased bit footage.

Speed of rotation used naturally varies with the contractor and with the rig. On top of the ground and down to a depth of 4,000 ft., the pipe is turned at about 200 r.p.m. Below that depth the speed is reduced to around 100 r.p.m. and the weight carried on the bit is lessened while drilling in shale.

The reason for the changeover at 4,000 ft. is the addition of admixtures to the mud to prevent sticking of the drill pipe. Above that point the drillers use practically nothing but water for a drilling fluid. While this increases the rate of penetration it also increases the hazards of getting stuck and the difficulties in getting in and out of the hole. It is not uncommon to pump down several hundred feet of pipe while getting back to bottom after making a trip. Below 4,000 ft. the chances of getting stuck are so great that the mud viscosity and weight must be increased.

Generally the mud is carried below 10 lb. per gallon and with a viscosity of around 34 seconds A.P.I. to 4,000 ft. Below that the weight is increased to as much as 10.5 lb. per gallon just before the casing point with the viscosity at about 38 seconds A.P.I. Actually, every effort is made to keep the mud lighter than 10 lb. per gallon above 4,000 ft.; drillers jet the pits often and fill them with water.

From 3 to 10 tons of colloidal materials are used in the mud on each well. The mud systems include some device, either a vibrating or rotating screen, for the removal of cuttings. The two circulating pits are arranged in either parallel or L-shape depending on the rig. Care is also taken to prevent the entry of large amounts of rain water into the pits; while this would be welcome in the upper part of the hole, it is a danger in the deeper portion. Several strings of pipe have been stuck in the field but drillers have managed to free them again.

Completion of the wells at Guthrie is by the rotary method, the casing being run to the top of the pay and cemented with 500 sacks. The cement plug is then drilled with a 5½-in. rock bit on the 3½-in. drill pipe and the hole cleaned to bottom. Drill pipe is then laid down, and tubing run to near the bottom and the well connected up. An extra connection is provided into the pits for swabbing of the well through the tubing and the elimination of the mud in that manner.

For swabbing the wells tubing trucks are used instead of the rotary hoist and engines. This method prevents fires due to sparks from exhaust, manifold, or wiring. Generally a truck equipped with a hoist and swabbing line and another equipped with hoist and a line for the tubing block are used. The rotary equipment is kept rigged up in case any deepening or remedial work needs to be done on the well.

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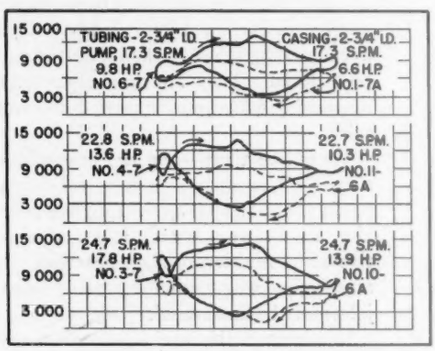
# Recent Developments Point to Wider Use of Casing Pumps

POSSIBLE inability of operators to secure rods and tubing when needed may be the occasion for more detailed consideration of other types of oil-well pumps. These include the rodless-type pumps, such as the hydraulic and the electrical centrifugal, and the casing pump. The former types are well known as they were only recently introduced. The casing pump, however, has been used for such a long time that recent advances in this method are often overlooked.

Purpose behind the casing pump originally was to handle large volumes of fluid. The capacity of tubing pumps was limited by the diameter of the tubing and it was only logical to look for some method to increase this diameter. However, as all of the load of the fluid column is supported by the rod strings, the setting depth of large casing pumps (5-in., etc.) was naturally considerably less than a 2-in. tubing pump with same size rods.




***In order to determine comparative polished-rod loads and horsepower requirements with use of casing pumps (dashed line) and tubing pumps (solid line), all other conditions equal, the accompanying dynamometer cards were taken at various speeds on a 3,250-ft. Kansas well***

Advances in the quality of the rod strings and in the operation of the pumping units extended the safe setting depth of the casing pumps and this was increased by the introduction of the small-diameter casing pump. While it might be impossible to lift the desired volume of fluid with a 2-in. pump in 2½-in. tubing string, it was possible to lift it with a 2½ or 3-in. pump in a 5-in. casing string.

Study of this type of pumping has led to an interesting disclosure but one which might be expected when the principles involved are considered. The smaller the diameter of the tube through which a fluid is flowing, the greater the losses due to friction. The pressure drop in a 2-in. pipe is seven times greater than the drop in a 3-in. pipe; a comparison of carrying capacities shows that a 4-in. pipe will carry 5.3 times as much fluid as will 2-in. pipe at the same pressure.

Also to be considered is the increase in friction which accompanies the increase in velocity necessary to get a large amount of fluid through a small-diameter tube. All of the power required to overcome the resistance to flow must be supplied by the pumping unit and transmitted by the rod string. Dynamometer cards taken on wells equipped with tubing and casing pumps of equal diameter and under equal conditions show that considerable less horsepower is required for the operation of the latter. (See diagram.) Thus it is possible to lift more fluid per horsepower expended on a casing pump than on a tubing pump of the same size.

The recent trend toward slim holes and small casing has led to the use of small-diameter pumps as a means of eliminating the tubing string rather than the production of a high fluid volume. This has been particularly true in Kansas where one company has used a number of pumps of this type. While damage to the casing due to the rods striking it can be and is avoided, the problem of corrosion prevention causes trouble where a bad salt-water condition is present. Use of tubing in such wells prevents the eating of holes in the casing while if the tubing is ruined, it can be easily replaced. Where even large volumes of salt water are being handled, there is generally no difficulty, however, unless the water is particularly corrosive.

Operation of the casing pump requires that the working barrel be packed off from the casing so that the casing can be used for the fluid passage or production string. The casing pump is run in the well on the rod string the same as an insert-type tubing pump. There are several methods used for setting the packer depending on the manufacture of the particular pump used. Garbutt rods or J-tools are provided for recovering the pump for repair of the valves. (See Section K of Producing Equipment Directory for generalized diagram of both tubing and casing pumps.)

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# *Central Location for Pump Control Switches*

ONE of the outstanding features of an electrical pumping system is the convenience of control. On the simplest type of installation, it is only necessary for the pumper to throw a switch to either start or stop the pumping unit. Time cycle switches on the more elaborately equipped properties automatically control the time the pumping unit is in operation and start and stop it at predetermined intervals.

Another feature which has been incorporated in large properties recently equipped and built into older installations is the service-restoration system. Regardless of the type of electric service—lease generated or purchased power—there are bound to be some interruptions. The peak load on a pumping unit occurs while it is being started and for that reason all of the wells being served cannot be put back in operation at the same time. For economy and efficient control it is essential that a portion of the units be automatically operated while others are manually operated. In the latter case, the pumper must visit each pumping unit, throw the switch out and then later, on a second visit, throw the switch in to start the pump. For isolated circuits and isolated units, automatic switches do the same work.

***Group of manual switches installed at a central point to facilitate pumping operations***

The accompanying picture shows an improvement on this system, the grouping of manual switches at a central point. This installation is in the Salem field where several strip leases led to a crowding of a number of pumping units in a comparatively small space. The central installation is located along a good roadway and the pumper has only to step out of his car to manipulate the switches. He can control the operation of eight pumping units from each of these central installations.

In addition to being easier and a time saver, the use of a central installation also improves the appearance and the ease with which servicing equipment can be brought to each well. The switch boxes are normally hung on separate poles adjacent to the pumping units. In a congested area, such as on and around these stripper leases, the poles become a distinct nuisance and their elimination by using a central grouping makes for operating convenience.

•

## Charts Illustrate Effect of Connate Water on Oil Recovery

Charts illustrating the effect of connate water saturation on the recovery of oil by water drive, with original bottom-hole pressure maintained, have been recently prepared by Core Laboratories, Inc. By knowing porosity, residual oil saturation in the cores and formation volume factor, the oil recovery by water drive for different connate water values may be approximately determined from the chart. The value of knowing the exact connate water saturation of the productive horizon is clearly illustrated by an example given on the chart: A variation of connate water from 40 to 20 per cent of pore space changes the oil recovery by water drive from 583 bbl. per acre ft. to 905 bbl. per acre ft. A copy of the charts, printed on stiff paper in two colors, can be obtained free by writing the Core Laboratories, Inc., Santa Fe Building, Dallas, Tex.

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# Progress in METALS

By W. L. NELSON

## Present-Day Low-Alloy Steels

EACH year the status of low-alloy high-strength steels is surveyed by Editor Edwin F. Cone of Metals & Alloys. This year (March 1941) only one new steel was announced, namely Otiscoloy of the Otis Steel Co., Cleveland, Ohio. The other low-alloy steels have been discussed on this page in the issues of February 11, 1937, Page 50; February 3, 1938, Page 51; and August 17, 1939, Page 57.

The new steel might be classed as a low-alloy copper-nickel-chromium steel although the percentage of nickel and chromium are very low.

| | |
|---|---|
| Carbon | 0.12 max. |
| Manganese | 1.00-1.35 |
| Phosphorus | 0.1-0.14 |
| Silicon | 0.1 max. |
| Copper | 0.5 max. |
| Nickel | 0.1 max. |
| Chromium | 0.1 max. |

In the as-rolled condition the physical properties are:

| | |
|---|---|
| Yield strength | 50-70,000 lb./sq. in.* |
| Tensile strength | 70-85,000 lb./sq. in.* |
| Elong. in 2 in. | 30-44 per cent |
| Elong. in 8 in. | 22-30 per cent |
| Red. of area | 55 per cent min. |
| Charpy impact at 75° F. | 35 ft.-lb. min. |
| Charpy impact at 50° F. | 15 ft.-lb. min. |
| Endurance limit | 48,000 lb./sq. in. min. |
| Shearing strength | 60,000 lb./sq. in. min. |

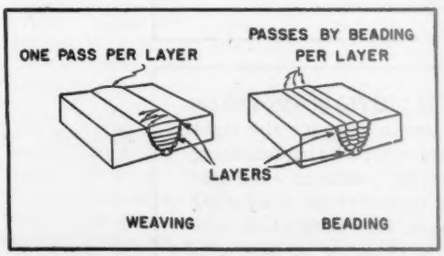
*Depending on gage.

The steel has a superior low-temperature impact strength, it has a relatively high endurance limit, and it is superior to plain or copper steels with respect to mild corrosion.

## Welding Terms

### Sequence of Welding Operations

THE order of welding the component parts of a weld or structure may be discussed by the definitions of pertinent welding terms. From the standpoint of the cross-section and axis of the weld see the above figure in connection with the following definitions:




*Buildup sequence.*—The method of depositing a multipass weld with respect to its cross-section.

*Pass.*—The weld metal deposited by one general progression along the axis of the weld.

*Pass sequence.*—The method of depositing a weld with respect to its length.

Two general methods of building up the weld, namely beading or weaving, may be employed:

*Beading (parallel bands).*—A technique of depositing weld metal without oscillation of the electrode.

*Weaving.*—A technique of depositing weld metal in which the electrode is oscillated.

The material that is deposited by any of the above methods of depositing is referred to as a "layer."

## Creep of Lead

Abstract: A. A. Smith, Jr., "Creep and Recrystallization of Lead," Metals Tech., Vol. 7, Sept. 1940. Taken from Metals and Alloys, Feb. 1941.

THE creep properties of high-purity lead (99.9998 + Pb) were determined at temperatures of 30°, 55°, and 100° C. It was found that creep of lead does not necessarily proceed uniformly but may take place in intermittent steps. At comparatively high rates of extension recrystallization occurred while at lower rates none could be detected.

When recrystallization is a factor, creep rates are greater than would be indicated by extrapolation from the low-rate part of the log-rate log-stress curve. Employing the method proposed by Kanter, the energy value of 16,500 cal. per gram mol is obtained, which is considerably different from the value of the heat of self-diffusion of lead.

## Commercial Pressure Vessels Tested to Destruction

THE ultimate strength of thick-walled small-diameter vessels is usually less than that computed by the regular design formulas. The exact reasons for this variation are not known but this lack of strength may originate from internal material defects which cannot normally be eradicated, from large residual stresses due to the fabrication of the heavy solid wall and from an erroneous assumption as to stress distribution in the wall due to incorrect theory or to minor variations in the vessel form.

The A. O. Smith Corp. of Milwaukee, Wis., has been testing commercial thick-walled vessels to destruction and the results from such vessels having solid walls indicate a deficiency of strength as mentioned above. They also found by actual tests to failure by bursting that vessels whose thick walls were composed of multiple thin layers of metal wrapped around one another and welded to form tight-fitting concentric cylinders, developed a greater strength than the solid-wall vessel of the same dimensions, being in some cases as much as 33 per cent stronger than the comparable solid-wall vessel.

Incidentally the multilayer vessels exhibit the strength that would be expected using the common formula, $S = PD/2t$, in which $S$ is the stress in pounds per square inch, $P$ is the internal pressure in pounds per square inch, $D$ is the average diameter of the shell in inches and $t$ is the total thickness of the wall in inches. If the ratio of $D$ to $t$ is about 10 to 1 or less, the use of multilayer wall construction is advisable, but if the ratio exceeds 20 to 1, the regular solid-wall construction is equal in strength to the multilayer wall.

Multilayer construction permits a careful inspection of both sides of every layer for inclusions or other defects and insures that the wall is of a uniform high quality throughout its entire thickness. This factor has a definite bearing upon the superior behavior of multilayer walls, but the main advantage is though to be gained through the flexibility of the layers which nullifies the effect of minor irregularities in shape and limits residual bending stresses from fabrication to a small value. In proof of this theory it was found that multilayer vessels were actually stronger if they were not stress-relieved. The inner layers are put under considerable compressive stress (as indicated by a very small diameter decrease) during the fabrication process.

When tested to destruction the multilayer vessels failed by gradual deformation, whereas the solid-wall vessels failed by violent fragmentation. The solid-wall vessels tested had an internal diameter of 26 in. and a wall thickness of 3½ in. The multilayer vessels varied in internal diameter from 19 to 36 in. and in wall thickness from 3½ to 4⅞ in., each layer being about ¼ in. thick.

Courtesy A. O. Smith Corp.

*Multilayer wall construction*

# Pipe-Line Activity

## Plantation Awards Contracts To Three Construction Firms

Plantation Pipe Line Co. awarded contracts as follows: Latex Construction Co. will lay 245 miles of 12-in. in Louisiana and Mississippi as the first section of the gasoline trunk line which will extend from Baton Rouge, La., to Greenville, N. C.

Oklahoma Contracting Co. was awarded contract for 202 miles of the main line in the section between the Mississippi-Alabama state line to the Alabama-Georgia state line.

Williams Brothers Corp. will lay 584 miles of 8-in., 10-in. and 12-in. in Georgia, North Carolina, South Carolina and Louisiana. It is expected that pipe will start to arrive at the rate of a trainload a day beginning August 4.

## Stanolind Will Lay 62 Miles To Loop Line to Freeman, Mo.

Stanolind Pipe Line Co. received bids early this week for the construction of 62 miles of 10-in. which will be laid in four loops between Washington, Kans., and Freeman, Mo. This will provide increased capacity amounting to 15,000 bbl. which will raise the capacity of the trunk line from 30,000 to 45,000 bbl. per day. Work done already has built up the capacity of the lines leading to Washington station so that incoming capacity now totals 45,000 bbl. per day. No additional pumping equipment will be required to handle the load which will be carried when the new work is finished.

Pipe shipments started from the mills last week. The delivery schedule calls for half the pipe to be shipped this month and half next month.

The increased capacity furnished by the new loops will strengthen the Stanolind transportation system at a point where it faces an overloaded situation with increasing shipments from Wyoming and from western Kansas through the line connecting Bemis with Washington which was built last summer.

## Williams Brothers Will Move Gang From Des Moines to Newport, Vt.

The 109-mile 6-in. gasoline line of Standard Oil Co. (Indiana) from Burlington Junction, Mo., to Des Moines, Iowa, will be completed by Williams Brothers Corp. at the Des Moines terminal toward the end of this month. At that time the gang will be moved to Newport, Vt., to lay the section of the Portland-Montreal crude-oil pipe line which will extend from Newport to Montreal. This section of the line is being constructed for Montreal Pipe Line Co., Ltd., a Standard Oil Co. of New Jersey subsidiary. The section of the line in the United States is being constructed by Portland Pipe Line Co., another Standard subsidiary.

## Jones & Brooks Lays Line for Anchor-Hocking Glass Corp.

Jones & Brooks is laying pipe for Anchor-Hocking Glass Corp., Lancaster, Ohio. The line consists of 38 miles of 14-in. which is to extend from New Era to Boaz, W. Va., where natural gas from the new line will be delivered into the Ohio Fuel Gas Co. system for delivery at the Anchor-Hocking plant at Lancaster, Ohio. Laying of pipe started July 10. Jones & Brooks has established headquarters at Parkersburg, W. Va. Engineering and inspection is being handled by Midwestern Engineering & Construction Co. Originally surveys were made for a 100-mile line. Plans were changed due to the importance of reducing steel requirements for projects built during the existence of emergency conditions.

## Shell Nears Completion of Massachusetts Branch Line

The 24-mile 6-in. gasoline line under construction for Shell Oil Co., Inc., between Sherborn and West Boylston, Mass., is scheduled for completion August 1. Construction of the line has been contracted by Lane Construction Co., Meriden, Conn. Welding is done by C. N. Flagg Co. Lane's operations are supervised by H. F. Hayden, superintendent.

## Stanolind Awards Contract To Rogers & Vaughn

Stanolind Pipe Line Co. recently let contract to Rogers & Vaughn Construction Co., Inc., for construction of approximately 16 miles of 8-in. welded line to extend from a point west of Burkburnett to a point east of Electra, Tex. The same contractors will reclaim approximately 16 miles of 6-in. after the 8-in. line has been completed.

## Magnolia Will Lay 40-Mile Tomball-Sealy Crude Line

Magnolia Pipe Line Co. has recently received bids for the construction of a 40-mile crude-oil line consisting of 6-in. and 8-in. pipe which will be laid between Tomball and Sealy, Tex.

## Mid-Continent Lays Line From East Tecumseh

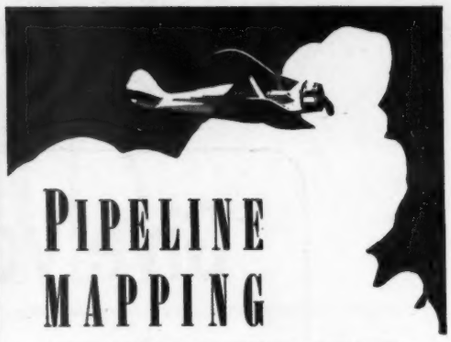
The pipe-line division of Mid-Continent Petroleum Corp. is stringing 13 miles of 4-in. pipe line from its Earlsboro station in Pottawatomie County, Oklahoma, to the new East Tecumseh pool.

## Stanolind Oil & Gas Transfers Gathering Systems to Yount-Lee

Yount-Lee Pipe Line Co., acquired by the Stanolind Oil & Gas Co. with the purchase of Yount-Lee properties in 1935, has taken over the gathering systems of the Stanolind Oil & Gas Co. in West Texas. These are located in the Cedar Lake area, Slaughter pool and Hendrick pool.

## Midwestern Lays Pipe for Socony-Vacuum River Crossing

Midwestern Engineering & Construction Co. is laying pipe for the river crossing at the Kansas River for the gasoline pipe line under construction for Socony-Vacuum Oil Co., Inc. (White Eagle Division). The new line extends from the company's main-line station at Topeka to Sioux Falls, S. D. Midwestern Engineering & Construction Co. has recently completed the 69-mile section of this 6-in. line between Topeka and the Kansas-Nebraska state line.

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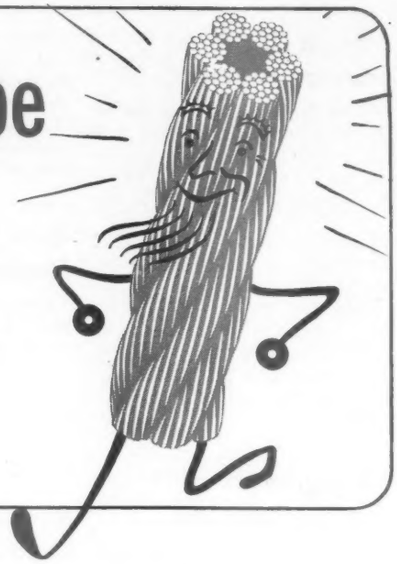

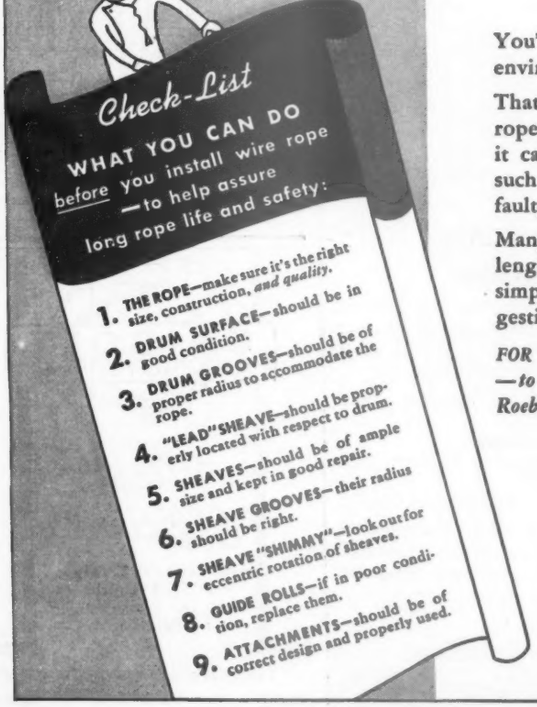
Check-List
WHAT YOU CAN DO
before you install wire rope
—to help assure
long rope life and safety:
1. THE ROPE—make sure it's the right size, construction, and quality.
2. DRUM SURFACE—should be in good condition.
3. DRUM GROOVES—should be of proper radius to accommodate the rope.
4. "LEAD" SHEAVE—should be properly located with respect to drum.
5. SHEAVES—should be of ample size and kept in good repair.
6. SHEAVE GROOVES—their radius should be right.
7. SHEAVE "SHIMMY"—look out for eccentric rotation of sheaves.
8. GUIDE ROLLS—if in poor condition, replace them.
9. ATTACHMENTS—should be of correct design and properly used.

**You've often heard this: "Don't blame him—blame his environment".**

**That's an expression that often can be applied to wire rope, too. For when wire rope trouble is encountered, it can be traced, in a great many instances, to causes such as inadequate rope care, improper rigging, or faulty equipment.**

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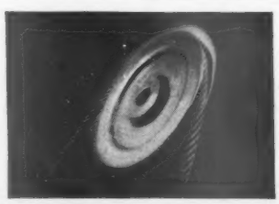
**Watch out for this trouble. If it persists—rope life and rope safety are sure to suffer.**



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# FIELD DEVELOPMENTS...

## HIGHLIGHTS FROM THE WEEK'S NEWS—

For the third successive week, completions stood at the highest level for the year, last week's total of 688 completions being 13 above the previous week's record of 675. Last week's record was far above the corresponding week of 1940, but this is not a just comparison as that was an abnormally low week, the average through July 1940 being about 600 completions.

The Monthly Summary of Operations, published in The Oil and Gas Journal last week showed a total of 5,394 wells completed during May and June and July should run well above these with 1,932 completions during the first 3 weeks. The reversal of this high trend is not yet in sight as drilling operations continue ahead of previous months.

The activity is becoming more generally scattered over the whole country as new fields are brought in in areas which hitherto had been dropping behind. The importance of some of these developments has been stressed in previous reports as they not only open up new pools but extend the areas known to be productive. In Michigan, the Reed City pool, the state's best discovery of the year, now has 50 active operations and wildcatters are out paralleling the old productive trend on the north in the hopes of finding more Reed Cities. Shell's Raisin City, California, discovery has started a number of tests between that field and Coalinga, the previous "farthest north." In Oklahoma, Texas Co.'s Apache strike is not only of major importance itself but it has started other operators out assembling blocks and will eventually lead to the discovery of more oil in the Anadarko basin. Actually, this play was preceded by Cumberland and West Hewitt, which revived the almost moribund southern district.

In Texas, North Central Texas is rapidly climbing to last year's level of activity and more drilling is promised, not only by the new fields, but also by the Ellenburger play which is moving from one to another of the old fields where structures are known and large areas can be proven up rapidly. West Texas and the Panhandle are also booming as old fields are being extended and in the former area the possibilities of the Ordovician are looming larger almost every week. The eastern and Rocky Mountain areas owe much of their present activity to the growing demand for gas and Illinois is staging another strong revival which seems likely to cause the prophets of impending doom to ask for a little more time. In Kansas, operators have gone as far along the arch as they can and stay within the state. Flank prospecting will undoubterly increase.

**ARKANSAS:** A north outpost to McKamie which was running low is producing 46° oil with much less than normal gas-oil ratio. It may be classified as an oil producer (p. 56).

**NORTH LOUISIANA:** The Wilcox play remains active with a well at Walters showing in four sands and a dry hole and producer offsetting the discovery north of Nebo (p. 56).

**OKLAHOMA:** Amerada has staked an important wildcat on a large structure in Caddo County. Other large blocks are being assembled and southwestern Oklahoma appears to be in for a thorough testing. A Wilcox sand pool is in prospect near Mehan, Payne County (p. 57).

**ILLINOIS:** Operations are rising to a peak as good results are recorded throughout the basin. In Jefferson County an excellent Benoist well is a new pool opener with 10 tests under way in the vicinity. Saline County may have its first production in the McClosky. Wayne County is becoming increasingly active and it is reported that Carter will test the St. Peter and Trenton at Louden (p. 68).

**LOUISIANA GULF COAST:** Lower Wilcox production obtained at Neale is considered the most important development since deep production was opened along the trend in 1937. Another deep test at Eola is being watched as it shows good indications below 10,600 ft. (p. 80).

**SOUTHWEST TEXAS:** Pettus production has been picked up 1 mile southeast of Benavides. A new producing area has been opened up 2 miles east of Campana. East Premont has been extended 1 mile west with four sands showing, one more than in the main pool at present. Another gas-distillate sand has been logged on the west flank of Stratton. Sun and Rincon fields are joined by production (p. 79).

**CALIFORNIA:** Claims have been filed on property in the Wilmington field with the possibility of the Government intervening to secure subsurface rights. Wildcatting is going strong in the San Joaquin Valley particularly in the northern portion between Raisin City and Coalinga. Drilling at Dominguez is expected to drop off following pressure decline. Oak Canyon and San Martinez in the coastal district are getting an active play (p. 58).

**NORTH TEXAS:** New Caddo lime production is indicated in Young County, and a shallow sand in Jack County is showing oil. The Big Six pool has a third pay and Kadane has been extended (p. 62).

**EAST TEXAS:** Following an extensive lease play, several wildcats are starting up. One test shows gas-distillate in the Malakoff section of Henderson County (p. 82).

**WEST TEXAS:** Sharon Ridge was extended ½ mile west and Emma ½ mile to the southeast. Small extensions are also recorded for the Seminole field and the Bennett sector of Wasson. Permian production is showing 1 mile north of Abell (p. 76).

**KANSAS:** Stanolind's Kearny County discovery is drilling ahead to the Ordovician. The Arbuckle production at Ray, Phillips County, and Viola production in the Stafford-Reno County sector appear to be governing factors influencing future activity. Tests in the southwestern part of Nebraska are showing some oil (p. 64).

**MICHIGAN:** Reed City now has 50 active locations as the fifth big well is completed. Kawkawlin is extended in the Berea sand. Gulf's deep test is nearing the Trenton (p. 83).

**OHIO:** Good gas wells are completed in the Clinton, Newburg and Maxon (p. 72)

**TEXAS GULF COAST:** A deep test in Joe's Lake, Tyler County, is showing production in the Wilcox 3,000 ft. below the upper Wilcox producing horizon (p. 70).

## COMPLETIONS IN ALL FIELDS . . .

(Week Ended July 19, 1941)

| | Oil | Gas | Dry | Total | 1941 total comp. to date | 1940 total comp. to date |
|---|---|---|---|---|---|---|
| N. Y., Pa., and W. Va. | 99 | 19 | 2 | 120 | 3,001 | 2,563 |
| Ohio | 5 | 21 | 5 | 31 | 901 | 714 |
| Kentucky | 5 | 14 | 9 | 28 | 391 | 275 |
| Indiana | 8 | 1 | 1 | 10 | 266 | 202 |
| Illinois | 77 | 0 | 21 | 98 | 1,864 | 1,965 |
| Michigan | 13 | 0 | 9 | 22 | 467 | 666 |
| Kansas | 37 | 2 | 11 | 50 | 1,094 | 967 |
| Nebraska | 0 | 0 | 0 | 0 | 51 | 18 |
| Missouri, Iowa | 0 | 0 | 0 | 0 | 13 | 22 |
| Oklahoma | 17 | 4 | 12 | 33 | 883 | 1,016 |
| Texas: | | | | | | |
| North Central Texas | 41 | 0 | 25 | 66 | 1,602 | 1,689 |
| West Texas | 52 | 0 | 5 | 57 | 1,154 | 1,139 |
| Texas Panhandle | 12 | 1 | 0 | 13 | 303 | 353 |
| East Texas | 4 | 1 | 4 | 9 | 616 | 351 |
| Texas Gulf Coast | 11 | 0 | 4 | 15 | 586 | 702 |
| Southwest Texas | 26 | 1 | 10 | 37 | 975 | 1,151 |
| Total Texas | 146 | 3 | 48 | 197 | 5,236 | 5,385 |
| North Louisiana | 11 | 2 | 2 | 15 | 344 | 337 |
| Louisiana Gulf Coast | 20 | 0 | 4 | 24 | 492 | 594 |
| Total Louisiana | 31 | 2 | 6 | 39 | 836 | 931 |
| Arkansas | 1 | 0 | 1 | 2 | 103 | 95 |
| Mississippi and Southeast | 5 | 1 | 0 | 6 | 146 | 112 |
| Montana | 3 | 2 | 4 | 9 | 134 | 110 |
| Wyoming | 4 | 0 | 0 | 4 | 75 | 85 |
| Colorado, Utah | 0 | 1 | 1 | 2 | 22 | 8 |
| New Mexico | 7 | 0 | 1 | 8 | 260 | 400 |
| California | 23 | 1 | 4 | 28 | 587 | 610 |
| Total United States | 481 | 71 | 135 | 687 | 16,330 | 16,144 |
| Total previous week | 477 | 55 | 143 | 675 | | |
| Week ended July 20, 1940 | 344 | 48 | 125 | 517 | | |

# Edge Well at McKamie May Be Classified as Oil Producer

By GEORGE WEBER

SHREVEPORT, La., July 21.—The Carter Oil Co. late last week brought in 1 Cornelius, northwest McKamie outpost in Lafayette County, Arkansas, for what may prove to be an oil producer. The well was reported making 15 bbl. hourly through a 7/32-in. choke. The fluid has a gravity of about 46° A.P.I. which is lower than that produced in the Barnsdall Oil Co. 1 Cornelius, heretofore the lowest well in the gas-condensate field.

Most wells in the field produce 58° condensate, at a gas-liquid ratio of about 9,000 cu. ft. per barrel. The Carter test just completed has an estimated ratio of 3,000 cu. ft. per barrel. Although gravity of liquid cannot be taken as an index of the type of well, the ratio, coupled with the lower gravity, strongly indicates that oil production similar to that at Dorcheat has been discovered at McKamie.

Previously, Barnsdall 1 Cornelius was completed making 55-gravity product at a ratio of 8,000 cu. ft. per barrel from two porous sections in the Smackover lime. While not yet proven by actual tests, it was believed that the well is producing oil from the lower porous section and condensate from the upper. This would appear likely, since the latest test is producing a lower gravity product at a lower ratio and may have encountered the porous lime below the gas-liquid contact, if one exists.

The new Carter well was carried to a total depth of 9,429 ft. and the 6-in. casing was perforated at 9,327-40 ft., The Smackover lime was topped at 9,230 ft., and the main porosity at 9,327 ft., about 70 ft. lower than the previous lowest producer in the field, the Barnsdall well. It is expected that the Carter well is situated on the north edge of production, which may extend in a west-east direction as do most of the other Smackover lime pools in South Arkansas. This centers attention on the progress of Carter 1 Hanes, a west outpost, which should reveal much concerning the westward extent of the field.

Since McKamie is being developed on 160-acre spacing as a gas field, the possibility of oil production poses a problem for operators and the Arkansas Oil and Gas Commission as to the method for fitting 40-acre spacing with a 160-acre pattern. Official classification of the well as an oil well, will probably await more accurate tests of production, and possibly a phase study of the gas and liquid mixture under reservoir conditions, since that is the true determination of a gas field.

### Ouachita County Test Is Shut Down

In Ouachita County, Arkansas Fuel Oil Co. shut down 1 McGaughy, which is to be abandoned. The deep Smackover wildcat cored from 5,310-36 ft., recovering soft porous lime with a salty taste. Sidewall cores showed nothing encouraging, so the test is considered a failure.

Two active Smackover lime wildcats remain in South Arkansas, both in Lafayette County, at the western end of the Smackover trend. Previous wildcats drilled at the northwestern and western extremities of the current trend have sometimes found porosity and saturation in the Smackover lime, but extremely low permeability has prevented commercial production. The two current tests will be watched with interest to see whether this condition is borne out. Ohio Oil Co. is beginning 1 Garner, northwest of the Lewisville field, and Tide Water and Seaboard are drilling 1 Moore, in 29-17-24, in the central part of the county, about 5 miles due west of McKamie.

## North Wilcox Play Extends Over Five Louisiana Parishes

Wildcatting shows a marked increase throughout the Wilcox trend, particularly to the east. Three wildcat tests were staked during the week, in Catahoula, Grant, and La Salle parishes. The current exploration program extends over five parishes, and leasing and geophysical operations are carried on throughout the north Wilcox play, and eastward into Mississippi.

In the Walters field, southern La Salle Parish, Carter Oil Co. encountered four oil sands in 2 Louisiana Delta at 4,707-10 ft., 4,712-19 ft., 4,739-40 ft., and 4,751-65 ft., with the deepest showing the best. Casing has been set and an early test is expected. The deepest sand corresponds to the producing horizon in the H. R. Scivally 1 Louisiana Delta, which offsets the current test on the north.

### New Well and Dry Hole Completed North of Nebo

In the new area recently brought in by H. L. Hunt north of Nebo, a well and a failure resulted from the week's drilling. The operator's 2-C Goodpine, north offset to the 1-C, discovery well, was brought in for a producer, while 3-C, a diagonal northwest offset to discovery was dry. It is not yet known whether the area constitutes an extension to Nebo or a separate pool, and the current completions, located on the opposite side of the discovery well from the Nebo field proper indicate nothing in that respect.

In Caldwell County it is reported that Big West Drilling Co. may complete the wildcat, 1 Lowe, as a gas well. The test has been shut down for orders at 4,009 ft. after taking sidewall cores which showed no oil. A gas show in 1 ft. of sand between 2,455-63 ft. was reported several days ago.

### Extreme Care Used in Testing Wilcox Wildcats

Throughout the Wilcox area, eight wildcats are now active, and several others have been staked and are due to spud shortly. Others have been shut down for several weeks, but have not yet been abandoned. Since completion poses the greatest problems in the Wilcox fields, wildcatters are taking extra precautions in exploring the lower Wilcox possibilities.

In addition to coring and electrical logging, sidewall coring, close check on samples, use of gas detecters, and other aids are being employed in making certain that oil and gas sands in the formation are recognized if they occur. For these reasons, some wildcats previously abandoned with shows may in the future be reentered for further checking.

## SUMMARY OF COMPLETIONS

*North Louisiana*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Bellevue | 1 | 8 | 398 |
| Caddo | 3 | 82 | 5,045 |
| Olla | 3 | 207 | 7,697 |
| Nebo | 1 | 97 | 3,835 |
| Little Creek | 3 | 262 | 9,183 |
| Gas wells: Bisteneau | 1 | *41.8 | 5,310 |
| Monroe | 1 | *2.2 | 2,180 |
| Dry holes: Nebo | 1 | ..... | 4,875 |
| Oakland | 1 | ..... | 2,340 |
| Total | 15 | 656 | 40,863 |

*Arkansas*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Urbana | 1 | 185 | 3,000 |
| Dry holes: Troy | 1 | ..... | 2,172 |
| Total | 2 | 185 | 5,172 |

*East Texas Border*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Dry holes: Wildcats | 1 | ..... | 6,347 |

*Million cu. ft.

### NORTH LOUISIANA COMPLETIONS

Bisteneau, Bienville Parish: Union Prod. Co. 1-A Cook est., SE NW SW 10-10-10, 41,800,000 cu. ft. gas, R.P. 1,938 lb., 5½-in. casing 5,310 ft., perf. 5,177-5,237 ft., and 5,253-68 ft., 5,000 gal. acid, Pettit zone.

Bellevue, Bossier Parish: Premier Inv. Co. 47 Wyche, SW NW NW 14-19-11, pumped 8 bbl., T.D. 398 ft., 7-in. casing 322 ft.

Caddo, Caddo Parish: Southern Oil & Gas Co. 1 Stiles, SE NE SE 32-21-16, pumped 20 bbl., T.D. 1,897 ft., 7-in. casing 1,852 ft.

W. E. Stewart et al 1 McAnn, NW SW SE 32-21-15, pumped 50 bbl., T.D. 1,592 ft., 5-3/16-in. casing 1,481 ft., 4,000 gal. acid.

Weaver Perry Oil Corp. 11 Pardue, NW SE NW 33-21-15, pumped 12 bbl., T.D. 1,586 ft., 7-in. casing 1,404 ft., 4,000 gal. acid.

Olla, La Salle Parish: Ark. Fuel Oil Co. 14-A Tremont, SE SW 3-9n-2e, pumped 50 bbl., 4 per cent salt water, T.D. 2,385 ft., 7-in. casing 2,105 ft., perf. 2,060-70 ft., Kraft sand, Wilcox.

Placid Oil Co. 98 La. Central, NW SW 31-10-3, 100 bbl., 25 per cent salt water, flow valves and input gas, T.D. 2,861 ft., 7-in. casing 2,834 ft., perf. 2,424-26 ft., Wilcox.

Placid Oil Co. 100 La. Central, NW SW 2-9n-2e, 96 bbl., 12 per cent salt water, 13/64-in. choke, T.P. 550 lb., C.P. 750 lb., T.D. 2,451 ft., 7-in. casing 2,449 ft., perf. 2,096-2,100 ft., Wilcox.

Nebo, La Salle Parish: H. L. Hunt 2-C Goodpine, NW NW 33-8n-2e, 110 bbl., 12 per cent salt water, flow valves and input gas, T.D. 3,835 ft., 7-in. casing 3,835 ft., perf. 3,394-3,412 ft., Wilcox.

H. L. Hunt 3-C Goodpine, NE NE 32-8n-3e, T.D. 4,875 ft., dry.

Little Creek, La Salle Parish, H. L. Hunt 1 Tannehill & Gallagher, SE SE 31-9n-2e, 110 bbl., 15 per cent salt water, flow valves and input gas, 7-in. casing 2,738 ft., perf. 2,406-16 ft., Wilcox.

H. L. Hunt 2 Tannehill & Gallagher, SE NE 31-9n-2e, 110 bbl., 6 per cent salt water, ¼-in. choke, T.P. 125 lb., C.P. 250 lb., T.D. 3,718 ft., 7-in. casing 3,714 ft., perf. 2,400-16 ft., Wilcox.

H. L. Hunt 3 Tannehill & Gallagher, NE SE 31-9n-2e, 125 bbl., 40 per cent salt water, input gas, T.D. 2,727 ft., 7-in. casing 2,714 ft., perf. 2,416-24 ft., Wilcox.

Monroe, Union Parish: N. & W. Corp. 1 Haile, NE NE 2-21-3e, 2,192,000 cu. ft., R.P. 940 lb., T.D. 2,180 ft., 7-in. casing 2,098 ft., Monroe Gas rock.

Oakland, Union Parish: Walter B. Reineck 4 Hudson, NW SE SE 7-23-1e, T.D. 2,340 ft., salt water, show oil.

### NORTH LOUISIANA WILDCATS

Caldwell Parish: Big West Drlg. Co. 1 Lowe, SE SE 36-12n-3e, T.D. 4,009 ft., will set casing.

Southern Carbon Co. 1 Howard, SW SE 13-14n-4e, drilling 57 ft.

Catahoula Parish: O. C. Borah 1 Womach, 54-9n-5e, drilling sand and shale 2,320 ft.

Carter Oil Co. and Phillips Pet. Co. 1-B Tensas Delta Land Co., NE SE 15-5n-5e, drilling shale 2,123 ft.

Claiborne Parish: Big West Drlg. Co. 1 Alford, C W½ 11-21-4w, drilling 4,867 ft.

Crow Drlg. Co. 1 O'Bannon, NW 30-22n-4w, rigging up.

De Soto Parish: J. E. Stock et al 1 Cook, NW NE 32-13-14, T.D. 2,890 ft., W.O.

Franklin Parish: Grubb & Hawkins 1 Campbell, SE NE 1-11n-7e, moving in material.

S. J. Ryan 1 Womble, NW NW NW 11-12n-8e, T.D. 285 ft. waiting on cement.

Grant Parish: E. F. Neely 1 McAdams, NE SE 19-6n-2e, rigging up.

La Salle Parish: Aden Oil Co. 1 Grey, NE NE 36-8n-2e T.D. 405 ft., waiting on cement.

Natchitoches Parish: Rhoades & O'Mara 1 Prudential Life Ins. Co., NE SE 36-11-10, drilling 5,431 ft.

Sabine Parish: Roy Raines 1 C. Carter, 27-9-11, old well drilling deeper, old T.D. 2,403 ft., T.D. 3,485 ft., S.D.

West Carroll Parish: R. H. Crowe, Tr. 1 Bruce Lumber Co., SE 16-21-9, drilling red shale 4,280 ft.

## AVERAGE DAILY PRODUCTION

### NORTH LOUISIANA

| | July 19 | July 12 |
|---|---|---|
| Caddo light | 6,060 | 6,050 |
| Caddo heavy | 2,205 | 2,170 |
| Cotton Valley | 16,468 | 15,090 |
| Cross Lake | 2,745 | 2,725 |
| De Soto and Red River | 1,005 | 995 |
| Haynesville | 2,555 | 2,510 |
| Homer | 2,890 | 2,875 |
| Lisbon | 2,855 | 2,819 |
| Nebo | 2,250 | 2,280 |
| Olla | 12,630 | 12,455 |
| Rodessa | 14,610 | 14,475 |
| Sligo | 2,280 | 2,300 |
| Sugar Creek | 1,275 | 1,255 |
| Urania | 2,230 | 2,310 |
| Zwolle | 1,140 | 1,145 |
| Total North Louisiana | 76,120 | 74,205 |

### SOUTH ARKANSAS

| | | |
|---|---|---|
| Atlanta | 2,935 | 2,965 |
| Buckner | 2,250 | 2,240 |
| Champagnolle | 915 | 850 |
| Dorcheat | 1,820 | 1,740 |
| El Dorado | 1,525 | 1,540 |
| Magnolia | 19,940 | 20,000 |
| Nick Springs | 960 | 1,020 |
| McKamie | 2,785 | 2,810 |
| Rodessa | 1,360 | 1,390 |
| Schuler | 16,480 | 16,500 |
| Smackover light | 1,950 | 1,840 |
| Smackover heavy | 12,905 | 12,925 |
| Troy | 970 | 1,040 |
| Urbana | 2,375 | 1,950 |
| Village | 1,080 | 1,075 |
| Total South Arkansas | 73,095 | 72,330 |

### MISSISSIPPI

| | | |
|---|---|---|
| Tinsley | 46,715 | 41,585 |
| Pickens | 550 | 580 |
| Total Mississippi | 47,265 | 42,165 |

### NEW NORTH LOUISIANA WILDCAT LOCATIONS

Catahoula Parish: H. L. Hunt 2-A La. Central, NW SE 9-9n-6e.

Grant Parish: H. L. Hunt 1-F Goodpine, NW NW 12-8n-2w.

La Salle Parish: Scruggs & Todd 1 Pipes, NW NE 19-8n-3e.

*(Continued on Page 70)*

# Southwestern Play Hits Fast Pace With Major Tests

By ROBERT INGRAM

BY last week it was obvious that Mid-Continent operators were playing heavily for important new production in Oklahoma. Wildcat operations were up to a new high (see below) and, with several of them showing for new pools, locations were announced for additional tests in important areas.

While there was no letup in prospecting in the central and eastern parts of the state, the south and southwest were gaining faster than other sections in new tests and development. Last week Amerada Petroleum Co. announced it would drill 1 Sprague, SE NW 11-8-12w, north of Fort Cobb in Caddo County, to 12,000 ft. The well will be another of the spectacular attempts to find Wilcox production in the Anadarko basin. Lacy Rollings and associates of Oklahoma City were ready to drill a test on the Apache townsite in Caddo County, not far from the Texas Co. discovery well at the Apache pool, on the extreme west side of the town in NW 21-5-11w, and Sinclair Prairie Oil Co. was ready to announce location for test of a 20,000-acre block in Bryan County, north and west of Bennington as soon as a technicality of title is cleared.

The proposed Sinclair development would be second in size in that southeastern area only to the Cumberland field to the west in which the Pure Oil Co. has drilled 36 producing wells without a single failure. Much of the Cumberland acreage lies in the path of waters to be backed up by the Red River Dam near Denison, Tex., but the Sinclair block is safely outside the inundation zone.

At the same time the Tussy field of Garvin County was quietly staging a comeback. Production has been climbing since the first of the year and last week, as two wells were completed, five more were to start. The field has a number of productive sands, and drilling at present is for a zone between 2,500 and 2,950 ft. Similar development is under way at the Empire pool in Stephens County where Cities Service Oil Co. has led the deepening and new drilling campaign, picking up new, comparatively shallow sands.

At the new Apache pool in Caddo County, Texas Co. crews were preparing to rip casing on the 2 Smith, discovery well, and drill a whipstocked hole from the Hunton gas zone to the Simpson Bromide oil pay at 3,383-3,410 ft. It is expected that the first whipstock will be set around 2,000 ft., above the Hunton. Seven-inch casing has collapsed at around 2,200 ft. and attempts to swedge through have been unsuccessful. South offset to the well, Sinclair Prairie 1 Lewis, NE NE SW 2-5-12w, had a blowout of gas, oil and mud at around 350 ft. when spudding. Surface pipe was cemented last week at 759 ft., and it was expected that this well would be the first in the new field to be put on production.

Meantime, talk of the pipe line from Apache to the Cement pool was revived and it was reported the line might connect with an old, unused Magnolia line from Healdton to Cyril instead of going east to Oklahoma City.

And in Stephens County, the Corporation Commission approved a 10-acre well-spacing pattern for a large area between the Loco and Woolsey pools opened recently by J. J. Brown and associates. There were already two producers in the area doing 30 to 40 bbl. a day from around 1,100 ft., and the order covered Sections 5, 6, 7, 8, 17, and 18 and the W½ of 16-3s-5w.

### SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Cement | 1 | 779 | 3,500 |
| Dill | 1 | 216 | 3,702 |
| Guthrie | 1 | 348 | 5,496 |
| West Hewitt | 2 | 1,264 | 4,395 |
| St. Louis | 2 | 120 | 8,517 |
| East Stroud | 3 | 257 | 9,709 |
| Other fields | 6 | 1,852 | 12,837 |
| Wildcats | 1 | 80 | 6,422 |
| Gas wells: Fields | 4 | *14 | 5,763 |
| Dry holes: East Stroud | 1 | ..... | 2,882 |
| Tecumseh Lake | 1 | ..... | 5,310 |
| Other fields | 9 | ..... | 19,797 |
| Wildcats | 2 | ..... | 1,940 |
| Total | 34 | ..... | 90,570 |

*Million cu. ft.

### Greater Seminole Area Being Extended Rapidly to East and West

New activity in the Greater Seminole area was concentrated in the Cromwell pools to the east and the West Earlsboro-Tecumseh trend in the west. An important 1-mile extension to the East Cromwell pool, in Okfuskee County, was made last week by C. W. Titus and J. R. Higgins at 1 J. D. Kennedy, SE NW NE 36-11-8, from Cromwell sand topped at 3,438 ft. The well was drilled less than ½ ft. into the sand and made an estimated 1,000,000 cu. ft. of gas with a showing of oil. Operators were running liner before testing.

Meantime, 40-acre spacing for the North Cromwell extension, also opened by Titus et al in 26-11-8, was approved by the Corporation Commission. Discovery well of the area was the Titus 1 Frank, W½ SW NW 25-11-8, which made 100 bbl. of oil and 20 bbl. of water with 2,000,000 cu. ft. of gas a day from the Booch at 3,084-3,120 ft. Production has also been found in the Cromwell sand, and the spacing order covers the Hunton zone which as yet has not paid off but has showed oil in several tests, notably Titus 1 Jackson, NW NW 25-11-8, which topped the Hunton at 3,944 ft. and drilled to 4,008 ft.

Foundation Oil Co. also had a northwest extension to East Cromwell at 1 Hattie Brown, NW NE 35-11-8, which was to be put on production after it tested 40 bbl. an hour from the Cromwell at 3,407-3,431 ft. with 1,500,000 cu. ft. of gas.

West of the Cromwell pool, Winona Oil Co. appeared to have a rich new oil area at 1 Lucinda Brown, NE NW NE 25-10-7, from the Cromwell zone at 3,567 ft. The well was flowing an estimated 18 bbl. of oil an hour through casing. It is just west of the same company's gas discovery at 1 Heller, NE NE 25-10-7, which was completed for 10,000,000 cu. ft.

Along the West Earlsboro-Tecumseh trend, wells were going down fast between the Crosbie and Atlantic East Tecumseh pool in 16-9-4, and the new area in 26-9-4, a number of them wildcats (see Pottawatomie County drilling report below).

### New Field Opened In Osage District

Oklahoma Natural Gas Co. and Norbla Oil Co. have opened a new field in Osage County at their 1 Osage, SE SE SW 24-22n-9e, southeast of Hominy. The well was estimated at 325 bbl. of oil a day, from the Arbuckle lime at total depth of 2,465 ft. It is about 2 miles from nearest production and is expected to start an active drilling campaign.

### Wilcox Pool Opener Likely In Payne County Test

Thomas A. Berry of Stillwater, Okla., was getting what looked like a Wilcox sand pool opener at 1 fee, NW NE SW 13-18-3, in Payne County, at week's end. The well, near Mehan, got the Wilcox at 4,098-4,102½ ft. and on a 3-minute drill-stem test flowed gas with a spray of oil. After shutting in and pulling the tester, there was a full stand of live oil in the pipe. Casing was being run for a test and Mr. Berry had already petitioned the Corporation Commission for a spacing program and asked that the pool be named the Rattlesnake pool because crews wiped out a den of rattlers when they started the well.

East of production in the Guthrie pool of Logan County, Mr. Berry was making another attempt to get production at 1 Howland, SW SW NW 8-17-1w, which was dry in the Wilcox at 5,444-56 ft., and dry in a 5,000-20-ft. zone. Another test was to be made at around 5,000 ft., and if that failed, a test was probably to be made in the Skinner.

### OKLAHOMA COMPLETIONS

#### Wildcats

Continental 1 Lenigar, SW SE SW 17-15-3w, flowed 80 bbl. oil and 10 bbl. water, Hunton, P.B. depth 5,250 ft., first Wilcox 6,219 ft., 7-in. 6,270 ft., T.D. 6,422 ft., *pool opener*, Logan County.

C. K. Minter 1 McGinnis, NE SE NE 30-18-17, dry, T.D. 965 ft., Dutcher 430-40 ft., Mississippian lime 590 ft., Wagoner County.

Keener 1-A Osage, SW SW SW 20-22-9, dry, T.D. 1,275 ft., Layton 1,182-1,215 ft., dry, Osage County.

#### Fields

West Arno, Creek County: Bryan 1 Stephney, NW SW NW 35-14-7, pumped 186 bbl., Wilcox 3,928-46 ft., 5-in. 3,891 ft., shot 3,928-46 ft., T.D. 3,946 ft.

North Bebee, Pottawatomie County: Farmers Mutual 1 Waite, SW NW SE 9-5-5, pumped 300 bbl., Hunton 2,210 ft., Sylvan 2,434-54 ft., acid, 5-in. 2,185 ft., T.D. 2,454 ft.

Cement, Caddo County: Butcher 1-A Walker, NE SE NE 1-5-10w, flowed 779 bbl., sand 3,422-28 ft. 3,429-34 ft. and 3,436-86 ft., 5-in. 3,486 ft., perf. 3,419-40 ft., T.D. 3,500 ft.

Comanche, Stephens County: Tomlinson 4 Fobb-C, W½ SE SE 12-2s-8w, pumped 2 bbl., sand 1,510-13 ft., 6-in. 1,507 ft., P.B. 1,500 ft., shot 1,388-93 ft.

Coyle, Payne County: Texas 4 Kinnich, E½ NW NE 11-17-1, old well P.B. from 4,949 ft. to 4,713 ft., perf. 4,656-65 ft., dry, perf. 4,685-95 ft., flowed 160 bbl.

Dill, Okfuskee County: Phillips 1 Replogle, SE SW NW 26-12-8, flowed 216 bbl. through ½-in. choke, Cromwell 3,686 ft., 5-in. 3,685 ft., T.D. 3,702 ft.

Empire, Stephens County: Cities Service 10 Burkelo, NE NW NW 4-2s-8w, pumped 6 bbl., sand 2,183-2,256 ft., 5-in. 2,324 ft., perf. 2,183-2,256 ft., T.D. 2,328 ft.

Guthrie, Logan County: Continental 1 Suits, SE SE NW 7-17-1w, flowed 87 bbl. in 6 hr., second Wilcox 5,472-96 ft., 6-in. 5,469 ft., T.D. 5,496 ft.

West Hewitt, Carter County: Tide Water 4 Ward, SE NE 19-4s-2w, flowed 20 bbl. an hr. for 16 hr., potential 320 bbl., sand 2,153-73 ft., lime 2,185-88 ft., sand 2,188-91 ft., lime 2,191-94 ft., sand 2,194-2,207 ft., 7-in. 2,178 ft., T.D. 2,207 ft.

Gibson 7 Herrell-A, NW SW NW 20-4s-2w, flowed 944 bbl. through 2½-in. tubing, sand 1,999-2,188 ft., 7-in. 2,209 ft., perf. 1,999-2,188 ft., T.D. 2,188 ft.

Hobart, Kiowa County: Sherman 2 Watkins-B, SW SE SE 18-7-17w, flowed 1,008 bbl., lime 1,035 ft., pay 1,041-42 ft., 8-in. 1,041 ft., T.D. 1,114 ft.

McIntyre 5 Watkins, NW NW 20-7-17w, flowed 15 bbl. an hr. on gas lift, P.B. 1,186 ft., acid 1,095-1,108 ft. and 1,179-82 ft., 8-in. 1,030 ft., T.D. 1,488 ft.

Lovell, Logan County: Diehl 1 Dollard, SW SW 27-18-4w, dry, T.D. 4,900 ft., Lovell sand 3,925 ft., upper Layton 4,730 ft.

Mannford, Creek County: Gled 1 Anthis, SW NE SE 9-19-9, dry, T.D. 2,100 ft.

Brewer 1-A Brewer, NE SE NW 28-20-9, dry, T.D. 2,320 ft.

Spaulding, Hughes County: Commercial 1 Bryant, NW NE SW 9-6-8, dry, T.D. 2,799 ft., brown lime 2,535 ft., no Booch.

St. Louis, Pottawatomie County: Gulf 3 Johnson, SW NW NE 7-7-4, pumped 40 bbl. oil and 175 bbl. water, Hunton 4,036 ft., 5-in. 4,036 ft., acid, T.D. 4,065 ft., P.B. 4,061 ft.

Barnsdall 2 Gregory, W½ W½ SW 29-8-4, pumped 80 bbl. oil and 190 bbl. water, Hunton 4,442-52 ft., 5-in. 4,442 ft., acid, T.D. 4,452 ft.

East Stroud, Creek County: Lewis 1 Foushee, NE NW NW 5-14-7, dry, T.D. 2,882 ft., Prue 2,838 ft., 5-in. 2,838 ft., some show oil.

Devonian 2 Hamilton, SW SE 32-15-7, flowed 128 bbl., Prue 2,785 ft., 5-in. 2,782 ft., shot 2,782-2,821 ft., T.D. 2,834 ft.

Shell 3 Jones, SW SW NW 32-15-7, 31 bbl., Wilcox 4,047-67 ft., T.D. 4,067 ft.

Shell 8 Jones, SE SW NW 32-15-7, 98 bbl., Prue 2,784-91 ft., T.D. 2,808 ft.

Tecumseh Lake, Pottawatomie County: Marshall 1 Montgomery, SW SW SE 36-10-3, dry, T.D. 5,310 ft., Wilcox 5,291 ft., cored 5,297-5,310 ft., recovered 2 ft. white sand.

West Weleetka, Okfuskee County: Fleming 5 McKinney, SW SE 18-10-11, 4,000,000 cu. ft. gas, 325 lb. R.P., sand 1,119-41 ft., 8-in. 1,095 ft., T.D. 1,141 ft.

#### Miscellaneous

Creek County: Beal 1-A Johnson, NE NW NE 36-14-9, dry, T.D. 2,145 ft., sand 2,050 ft.

Okmulgee County: Wood 1 Palmer, E½ NW 13-12-12, 4,000,000 cu. ft. gas, Dutcher 2,038 ft., T.D. 2,049 ft.

Walker 1-A Dugg, SE SE 11-14-12, dry, T.D. 2,180 ft.

Osage County: Blackwell 12 Osage, NE NW SW 3-28-11, 42 bbl., sand 901-52 ft., T.D. 956 ft.

Norris 7-A Osage, NE NE NW 22-21-12, 10 bbl., Bartlesville 1,285 ft., T.D. 1,302 ft.

Pittsburg County: Campbell 1 Vaughn, NE NE NW 20-3-12, 3,000,000 cu. ft. gas, Hartshorne 1,543-1,675 ft., P.B. 1,663 ft., T.D. 1,680 ft.

Campbell 1 Johns, SW NW 20-3-12, dry, T.D. 1,490 ft., sand show gas 1,416-90 ft., junked hole.

Wagoner County: Barton 4-A Pehnis, SE SW NW 26-18-16, dry, T.D. 649 ft.

Hartman et al 1 La Fever, NW NE SE 20-17-15, dry, T.D. 1,214 ft.

Pierson 3 Robson, NE SW SW 15-19-15, 3,000,000 cu. ft. gas, T.D. 920 ft.

#### Input Wells

Glenn pool, Creek County: Sinclair 25 Berryhill, NE SW NW 16-17-12, T.D. 1,403 ft.

Osage County: Barnsdall 2-W Osage, NW SW NE 20-21-9, T.D. 402 ft., P.B. 381 ft.

*(Continued on Page 77)*

# Extensive Litigation in View Concerning Wilmington Lands

By L. P. STOCKMAN

LOS ANGELES, Calif., July 21.—Holders of Valentine scrip filed claims with the U. S. Land Office in Los Angeles last week on two pieces of property in the Wilmington field of Los Angeles Basin and subsequent developments indicate extensive litigation will result. One claim was filed by the Valentine Land Co. when a valid certificate was presented and notices posted on the property involved. This claim was on beach frontage east of the Los Angeles County Flood Control Channel extending from Golden Avenue to Ocean Boulevard. A second claim was filed by William C. Fastnow who posted and filed claim to several acres of land that has been leased and developed on an agreement with the city of Long Beach. In all, about 42 acres of valuable property is involved. There is no question as to the validity of Valentine scrip certificates as it has already been upheld by the U. S. Supreme Court a number of years ago. There is considerable difference of opinion, however, as to whether the certificates can be applied in the present case. Secretary Ickes entered the picture this week by warning the public and prospective purchasers of Valentine scrip that it would only apply on available public land and furthermore that the Government retained mineral rights on all public land that it disposed of.

The most interesting part of the move on the part of holders of Valentine scrip certificates is that the Navy Department and the Department of the Interior have been entertaining ideas of attacking the claims of the State of California to all tidelands and lands that were submerged at the time the original tideline maps were made. If the federal Government proceeds to prove its contention and succeeds in securing title to all California tidelands then the Valentine scrip certificates appear valid as far as surface title is concerned. In case there are wells on the properties claimed they would be operated either by the present operators under federal lease or claimed by the Navy Department. Claimants to the property filed upon maintain this land has not been tabbed as mineral land or appropriated and is therefore open to claims of Valentine scrip. Protests over the filing, such as have been made by the city of Long Beach will throw the matter in federal court where a probable long fight will occur.

Valentine scrip dates back to 1872 when a claim was allowed against the federal Government and Congress passed a special act allowing the claim. It was affirmed by the U. S. Supreme Court in 1874. Previously in 1860 the federal Government seized 13,300 acres of land in Sonoma County, California, which had been granted to Juan Miranda in 1844 by the Mexican Government. This land is located around what is now the town of Petaluma, the largest poultry area in California. A few years later, Thomas B. Valentine bought from Miranda his claim against the Government and as assignee took the case into federal court and was successful. Valentine was issued 13,300 acres in 40-acre lots. California history records that Valentine lost practically all of his scrip in a poker game along with his homestead and cattle. At any rate there is very little scrip outstanding and it is rather difficult to secure. Last year one party secured enough of the scrip to file on an island off the coast of California as soon as the homesteader came on to the main land.

## ● SUMMARY OF COMPLETIONS ●

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: San Joaquin Valley | 6 | 1,555 | 24,126 |
| Coastal district | 4 | 1,942 | 17,398 |
| Los Angeles Basin | 13 | 7,567 | 58,861 |
| Gas wells: Rio Vista gas field | 1 | ..... | 4,305 |
| Dry holes: Wildcats | 4 | ..... | 10,748 |
| Recomp.: San Joaquin Valley | 2 | 404 | ..... |
| Coastal district | 1 | 200 | ..... |
| Los Angeles Basin | 5 | 563 | ..... |
| Total | 36 | 12,231 | 115,438 |

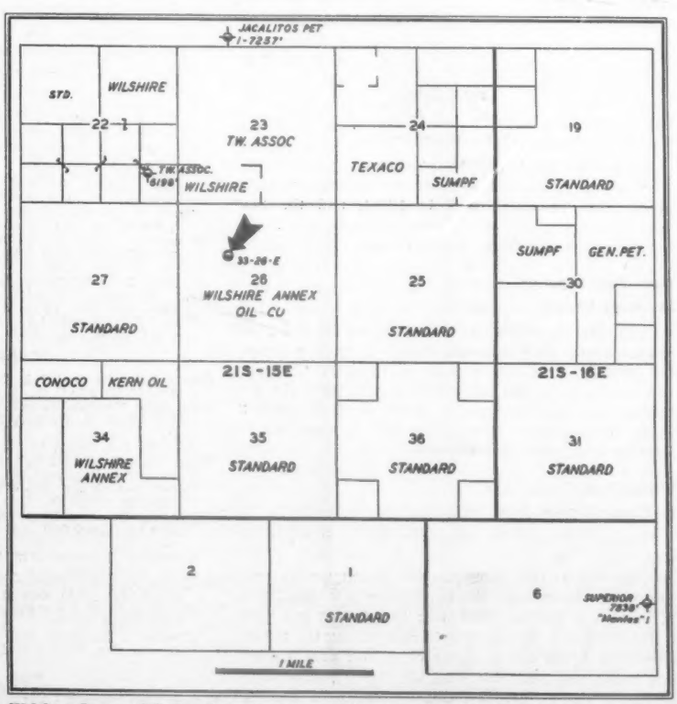
### Buttonwillow Deep Test to Be Abandoned; Other Wildcats Starting

There was a very appreciable increase in the number of wildcats to be drilled this week and many of them are located in a district that shows outstanding prospects. Offsetting this increase, however, were several abandonments this week. Texas Co. has failed to develop commercial production in its Buttonwillow wildcat, 47-15 Southern Pacific, and has filed an abandonment notice at 12,138 ft. This wildcat was given a thorough test and showed about 200 bbl., of which 95 per cent was water and 5 per cent oil. The Stevens interval in this territory has been found very tight in several wildcats although it looks very good during drilling operations. Some of the new wildcats being started include No. 33-26-E of Wilshire-Annex Oil Co. in the Jacalitos district of Kern County south of West Coalinga field and west of the Kettleman North Dome field, and A. N. Macrate's 1 Haberfelde south of the Greeley field in Kern County. The Jacalitos district to be prospected by Wilshire-Annex Oil Co. is one of those areas that should be productive but which has defied efforts for many years. The Jacalitos, which outcrops nearby, is in the basal Pliocene and structural conditions are favorable.

Since Shell Oil Co., Inc., found a new probable major field in the Raisin City section of Fresno County this area has become the mecca of lease hounds and prospectors. This leasing is rather general and extends all the way from Coalinga to Mendota to Fresno and down to the Tulare Lake region. This activity is not limited to independent operators but is also being participated in by Shell, Standard, Associated, General Petroleum Corp., and Union. Superior Oil Co., which has been one of the most aggressive prospectors as well as a most successful producer, has taken a number of leases and the George F. Getty-Pacific Western interests have also acquired acreage spotted at various intervals. In the San Joaquin area Superior Oil Co. has taken 1,080 acres from the San Joaquin Valley Properties, Inc. In the Kerman district Standard Oil Co. has leased the Heminghaus property aggregating 600 acres on a one-eighth royalty basis and a cash rental of $1 per acre annually. Many of the leases recently acquired in this part of the state are for 3 years and call for a cash bonus plus a yearly rental of $1 per acre. The royalty is usually one-eighth which indicates that operators hope to get back to the 12½ per cent basis instead of the 16⅔ per cent and 25 per cent royalty that has prevailed during the past several years. Operators realize that high royalties are satisfactory but that they work to the disadvantage of operator and landowner by precipitating early abandonment when the pumping period arrives.

## AVERAGE DAILY PRODUCTION

| | July 19 | July 12 |
|---|---|---|
| Wilmington | 84,550 | 84,350 |
| Midway-Sunset | 49,825 | 49,875 |
| Coalinga | 40,550 | 40,550 |
| Kettleman North Dome | 39,250 | 37,575 |
| Long Beach | 38,675 | 37,995 |
| Ventura Avenue | 34,750 | 35,250 |
| Huntington Beach | 29,925 | 29,350 |
| Dominguez | 27,325 | 28,025 |
| Santa Fe Springs | 23,325 | 23,350 |
| Santa Maria Valley | 17,995 | 18,625 |




*Wilshire-Annex Oil Co. has started a wildcat in the Jacalitos district in Fresno County, California, west of the northern tip of the Kettleman Hills and a few miles south of the West Coalinga field*

### Paloma Unitization Plan Held Up

The unitization plan for the Paloma field of Kern County has been held up unavoidably because several operators and landowners are unwilling to go into the plan until further data are obtained on the probable extent of the field. Although no announcement has been made this no doubt reflects the attitude of Kern County Land Co. which owns in fee the larger part of the acreage in the center of the probable productive area. Union Oil Co. has started a well on the south side of the field in 14-32s-26e, and this will determine whether this parcel shall become eligible for participation. Union Oil Co. has already approved the plan and was ready to sign on the dotted line at the time the difference of opinion arose. Another operator, however, took a top lease on Union's parcel and the latter was forced to begin drilling operations at once. Western Gulf, discoverer of the Paloma field, will start one or two wells on the southeast side of the field and General Petroleum is scheduled to start a new well along the north side of the field in the near future. Ohio Oil Co. may drill an outpost on the southwest flank and thus the structure may be quite well defined within another several months. It is not believed possible that any substantial progress will be made toward unitization within the next several months until more edge wells are drilled.

### SAN JOAQUIN VALLEY COMPLETIONS

Ciervo wildcat district, Fresno County: Seaboard Oil Co. 1 Hagood, 6-17s-13e, abandoned, T.D. 300 ft., rig foundation caved in, skidded rig to 1-A Hagood.

Fruitvale, Kern County: Western Gulf 32-B Kern County Land, 14-29s-27e, flowed 216 bbl., 22.1-gravity 1 per cent cut, 20,000 cu. ft. gas, 32/64-in. bean, pressures 50/100 lb., T.D. 3,203 ft., perf. 3,165-3,200 ft., deepened from 3,034 ft.

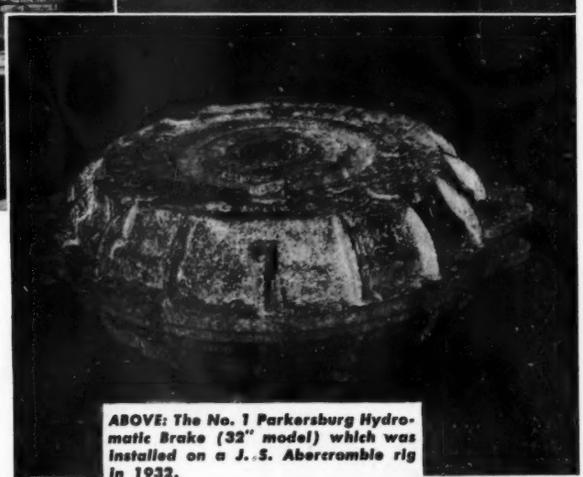
Kettleman North Dome, Fresno County: Standard 25-35-J fee, 35-21s-17e, flowed 188 bbl., 37.5-gravity, 1.6 per cent cut, T.D. 8,750 ft., perf. 8,442-8,745 ft., deepened from 8,451 ft. and recompleted in lower Temblor, top Temblor 6,827 ft., top Whipley shale 8,394 ft.

Standard 54-11-P fee, 11-22s-17e, flowed gas lift 85 bbl., 37.5-gravity, 1.4 per cent cut, T.D. 8,035 ft., perf. 7,020-8,035 ft. at intervals, completed in Temblor.

Midway-Sunset, Kern County: Bankline Oil Co. 24-34

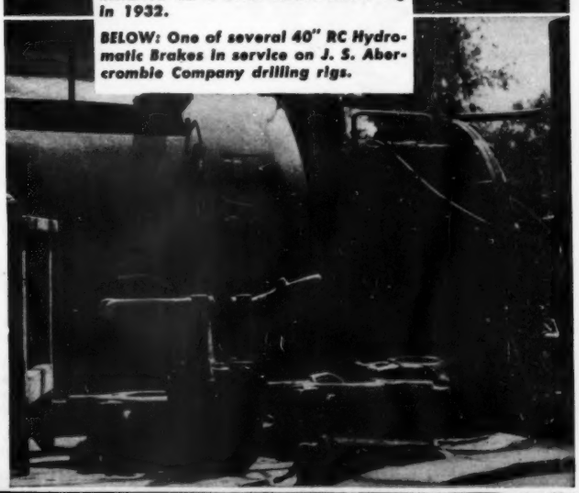
# TALK ABOUT YOUR REPEAT ORDERS

*A Parkersburg 40" RC Double Rotor Hydromatic Brake on an Abercrombie rig in a deep Gulf Coast field.*



*ABOVE: The No. 1 Parkersburg Hydromatic Brake (32" model) which was installed on a J. S. Abercrombie rig in 1932.*

*BELOW: One of several 40" RC Hydromatic Brakes in service on J. S. Abercrombie Company drilling rigs.*



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**Among them was an aggressive Gulf Coast drilling contractor by the name of Jim Abercrombie who immediately realized the economy and increased safety of this auxiliary brake and installed the No. 1 Hydromatic, a 32" model, on his rig. From that day on, Mr. Abercrombie has had a corner on the market of "famous firsts" in Hydromatic Brakes. The first 40", the first 40" with clutch control, and the first 40" double rotor type sold in the Gulf Coast area are now in service on Abercrombie rigs.**

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# PARKERSBURG *Hydromatic* BRAKE

Maricopa, 24-11n-23e, abandoned, T.D. 4,345 ft., no showings of importance.

Bankline Oil Co. 57-23 Maricopa, 23-11n-23e, abandoned, T.D. 1,104 ft., Etchegoin 552 ft., brown shale 885 ft., fault zone 890-910 ft., went back into Etchegoin oil sand at 982 ft. and brown shale again at 1,072 ft., bailed small amount of 10-gravity oil.

Quality Oil Co. 6 Cypress, 22-32s-23e, pumped 70 bbl., 16.2-gravity, 20 per cent cut, T.D. 1,855 ft., 187-mesh perf. 1,611-1,851 ft. ,top upper Williams oil sand 1,427 ft., intermediate Williams oil sand 1,618 ft., bentonite 1,726 ft.

Mount Poso, Kern County: Ring Oil Co. 1 Vedder, 28-26s-28e, pumped 60 bbl., 14.8-gravity, 1 per cent cut, T.D. 1,410 ft., 100-mesh perf. 1,395-1,410 ft., completed in Vedder oil sand of Miocene age 1,402-10 ft.

Shell 29 Security, 16-27s-28e, pumped 240 bbl., 15.2-gravity, 30 per cent cut, T.D. 1,860 ft., perf. 1,790-1,860 ft., completed in Vedder zone of Miocene age 1,768-1,860 ft.

Rio Vista gas field, Solano County: Amerada Pet. Corp. 1 Upham, 18-3n-3e, flowed 15,000,000 cu. ft. gas, no oil, 128/64-in. bean, shut-in pressures 1,700/1,700 lb., T.D. 4,305 ft., perf. 41 ½-in. holes 4,265-85 ft., completed in Emigh gas sand of Cretaceous.

Round Mountain, Kern County: Crestmont Oil Co. 1-2 Olcese estate, 8-28s-29e, pumped 116 bbl., 16.3-gravity, 20 per cent cut, T.D. 1,691 ft., 80-mesh perf. 1,651-91 ft., completed in Vedder oil sand of Miocene age 1,655-91 ft.

Tupman, Kern County: Richfield 65-29-A Kern County Land, 29-30s-25e, flowed 984 bbl., 33.5-gravity, 3 per cent cut, 750,000 cu. ft. gas, two 1½-in. beans, pressures 150/750 lb., T.D. 9,275 ft., perf. 8,721-8,868 ft., 8,914-9,158 ft., 9,188-9,269 ft., completed in Stevens zone of Miocene age 8,331-9,275 ft.

### SAN JOAQUIN VALLEY OUTPOSTS

Belridge, Kern County: Sentinel Oil Co. 1 Belridge, 10-28s-20e, drilling 3,980 ft. in sand and blue shale, elev. 731 ft.

Belridge Oil Co. 55-26 fee, 26-27s-20e, drilling 9,497 ft. in sand and shale, this deep test is at present about 1,100 ft. below top of productive Wagonwheel zone of Eocene age, elev. 658 ft.

Buena Vista Hills, Kern County: Honolulu 25-P fee, 10-32s-24e, T.D. 14,622 ft., P.B. 11,093 ft., drill pipe stuck, spotted oil, recovered to 12,880 ft., elev. 916 ft.

Elk Hills, Kern County: Standard 42-31-S fee, 31-30s-24e, T.D. 8,021 ft. in shale, fishing drill pipe, elev. 1,122 ft.

Standard 45-19-S fee, 19-30s-24e, drilling 9,261 ft. in sand, elev. 707 ft.

Standard 7-33-S fee, 33-30s-24e, drilling in sand and shale 3,050 ft., elev. 59 ft.

Greeley, South, Kern County: A. N. Macrate 1 Haberfeld, 32-29s-26e, building rig.

Kettleman North Dome, Kings County: Standard 1-1-U fee, 1-23s-16e, drilling 12,565 ft. in hard gray sand, showing gas, elev. 693 ft.

Midway-Sunset, Kern County: North American Oil Cons'd. 1-28 W.P., 28-32s-23e, T.D. 7,824 ft. in very hard shale with streaks of tight impervious sand, checking log, elev. 1,560 ft.

Mountain View, Kern County: Richfield 1 Mountain View, 16-30s-28e, location staked.

### SAN JOAQUIN VALLEY WILDCATS

Burrell district, Fresno County: General Pet. 1 Burrell, 2-17s-18e, drilling 5,898 ft. in siltstone and gray sand, elev. 210 ft.

Buttonwillow district, Kern County: Texas 47-15 Southern Pacific, 15-29s-24e, T.D. 12,138 ft., testing hard tight Stevens oil sand and shale, fair blow, fluid 90 per cent water and 5 per cent oil, elev. 297 ft.

Superior 13 Kern County Land, 18-29s-25e, drilling and spot coring in sand and shale 11,505 ft., elev. 313 ft.

Bellevue district, Kern County: Ohio 1-G Kern County Land, 36-29s-26e, drilling 9,798 ft. in sand and shale below Stevens zone, elev. 373 ft.

Delhi district, Yolo County: Amerada 1 Finance Construction Co., 4-6n-3e, drilling 998 ft. in sand, elev. 8 ft.

Delano district, Kern County: Associated 46 Quinn, 8-25s-27e, joint test with Union Oil Co., graded location.

Dyer Creek district, Kern County: Shell 46-11 Smith, 11-26s-27e, T.D. 2,443 ft. in gray sand and shale, Vedder zone 2,375 ft., elev. 884 ft.

Jacalitos district, Fresno County: Wilshire-Annex Oil Co. 33-26-E, building rig.

Lost Hills district, Kern County: Associated 46-16 fee, 16-27s-21e, drilling in sandy shale 6,094 ft., elev. 424 ft.

Monocline Ridge district, Fresno County: Seaboard Oil Co. 2 Hagood, 6-17s-13e, drilling 1,998 ft. in sand.

Pyramid Hills district, Kings County: Pyramid Prod. Co. 2 Spreckles, 16-24s-18e, drilling in sand 1,051 ft., elev. 673 ft.

Raisin City district, Fresno County: Shell 1-19 Santa Ana and Fresno Land, T.D. 5,049 ft., cemented 7-in. casing 5,022 ft., making production test.

Rio Vista district, Solano County: Jergins Oil Co. 1 Twitchell, 6-3n-3e, location staked 330 ft. S, 1,200 ft. E from NW cor. of section, landed 60 ft. of 16-in. surface pipe, elev. 15 ft.

Standard 1 Suisun Comm., 36-4n-2w, rigging up, scheduled for immediate work.

Standard 1 Natural Gas unit, 5-3n-3e, drilling 4,200 ft. in gas sand.

Superior 1 Larson, 8-3n-3e, location staked 330 ft. S, 1,023 ft. E from NW cor. of section.

Superior 1 McCormack, 9-3n-3e, location staked 3,680 ft. N, 330 ft. E from SW cor. section.

Sharkey Landing district, Glenn County: Holly Sugar Co. 1 fee, 32-22n-1w, drilling 4,330 ft. in sand and shale, elev. 32 ft.

Shafter district, Kern County: Continental 2-G Kern County Land, 35-27s-24e, T.D. 11,349 ft., redrilling 10,425 ft.

Tejon district, Kern County: Richfield 2-A Tejon, 19-11n-18e, drilling and coring in sand 4,940 ft.

## Pressure Drop Slows Dominguez Drilling

Drilling operations are gradually slowing up in the Dominguez extension and within another 2 weeks there will be only a few strings of tools in operation. This respite might only be of short duration as two wells west of Main Street are now headed down to the seventh Callender zone and if they show large flowing production increased drilling may be anticipated in that area. It is interesting to note, however, that reservoir pressures are dropping quite rapidly and steadily indicating the probability that the productive zone is becoming depleted. To date drilling operations have been centered along a north-south line east of Main Street and paralleling the west line of Union's Austin lease on which several exceptionally large flowing wells have been completed. The outer limits of production have been established in the north but the south and western limits are still open. It is quite possible that one or more operators may drill down to the eighth Callender zone if they fail to develop commercial production in the seventh Callender. This is particularly true of wells near the nose of the structure. The eighth Callender zone now being developed is only a 30-ft. zone of oil sand and as has been the case on several occasions it can not sustain intensive drilling indefinitely. For this reason it is quite probable that Hiles & Crawford who have drilled and completed several good wells in the western extension will hang up tools after they conclude operations on one well now drilling west of Main Street.

### Inglewood Extended to Southwest in Miocene

Drilling operations in the Inglewood field of Los Angeles Basin have not shown any great change during the past few weeks although Texas Co. is starting a second well on its Smith lease and Tide Water Associated Oil Co. is making preparations to begin development of its Vickers property. Hogan Petroleum Co. extended the limits of deep Miocene production to the southwest this week by completing 1-A Machado flowing 2,000 bbl. of clean 32.6-gravity oil daily although the well was not allowed to establish an actual potential. All operators having Miocene production with one or two exceptions have cut down to the maximum allowable of 142 bbl. daily but it is not possible that Federal Oil Co. will conform with curtailment for another few weeks. This operator feels that it is entitled to a break for its pioneer work and


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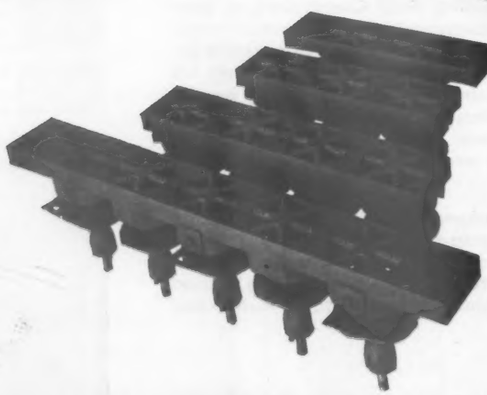

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secondarily because its first well, the deep-zone discovery, which was drilled by R. R. Bush Oil Co. for Federal Oil Co., was finished with surface fittings that are believed insufficient to withstand the high pressures found in the Miocene zone. It will be recalled that when this well was brought in it showed pressures around 3,000 lb. and the company found it advisable to bleed off gas every 30 minutes to reduce gas pressure. Some consideration must be given this well to prevent it from breaking loose because of the use of low-pressure fittings. Pressure found in this well upon completion exceeded all expectations as there was no indication during the course of drilling that any such high pressures should be encountered.

### Shallow Zones Being Exploited at Long Beach

The Long Beach field is getting somewhat active again after several years of only spasmodic operations and we may expect a further gradual temporary increase in drilling. Operators are at present exploiting two oil zones in a limited area that had been passed up when operators started down to the lower zones several years ago. Several commercial producers have already been finished and a few more are nearing completion in a zone around 5,500 ft. Shell Oil Co., Inc., discoverer of the Long Beach field, has recently completed several new wells in the Alamitos zone in which the first well was completed and at present has 5-A Hamilton down 5,300 ft. This well may, however, be finished in a zone around 4,650 ft. as the new zone did not look any too promising when cored last week. Richfield Oil Corp. has gun perforated its 4 Bixby at 5,285-5,323 ft., 5,333-40 ft., and at 5,354-5,430 ft. and this zone now undergoing exploitation was good for 60 bbl. of 23.5-gravity oil daily.

### LOS ANGELES BASIN COMPLETIONS

Coyote East, Orange County: Bartholomae Oil Co. 10 Stern, 22-3s-10w, pumped 560 bbl., 26.2-gravity, 5 per cent cut, T.D. 6,841 ft., perf. 5,525-5,777 ft., 5,800-6,000 ft., 6,041-6,836 ft., completed in Stern zone of Pliocene age.

Coyote West, Orange County: Standard 71 Emery, 24-3s-11w, flowed 553 bbl., 31.6-gravity, 2 per cent cut, 135,000 cu. ft. gas, 32/64-in. bean, pressures 500/800 lb., T.D. 6,000 ft., perf. 5,185-5,318 ft., 5,406-51 ft., 5,496-5,965 ft., completed in 99 zone of Pliocene age.

Dominguez, Los Angeles County: Dom. Associates 1 Clark, 29-3s-13w, flowed 635 bbl., 32.1-gravity, 2 per cent cut, 500,000 cu. ft. gas, 128/84-in. bean pressures 150/650 lb., T.D. 7,234 ft., perf. 7,181-7,234 ft., completed in seventh Callender zone of Miocene age.

Shell 118 Reves, 34-3s-13w, flowed 335 bbl., 30.5-gravity, 2.6 per cent cut, 338,000 cu. ft. gas, 128/64-in. bean, T.D. 4,145 ft., perf. 3,827-3,953 ft., 3,963-4,010 ft., 4,019-91 ft., 4,104-40 ft., completed in first Callender zone of Pliocene age.

Huntington Beach, Orange County: Signal O. & G. 22-B Bolsa, 34-5s-11w, flowed 178 bbl., 21.1-gravity, 4 per cent cut, 500,000 cu. ft. gas, 128/64-in. bean pressures 600/730 lb., T.D. 2,772 ft., perf. 1,907-2,447 ft., 2,606-2,730 ft., completed in Bolsa Chica zone of Pliocene age.

Inglewood, Los Angeles County: Hogan Pet. Co. 1-A Machado, 7-2s-14w, flowed 1,880 bbl., 33.7-gravity, 3 per cent cut, 1,500,000 cu. ft. gas, 38/64-in. bean, pressures 500/750 lb., T.D. 8,175 ft., 120-mesh perf. 7,951-8,173 ft., completed in Sentous zone of Miocene age, top of Miocene 5,490 ft., Nodular shale 7,700 ft., first oil stringers 7,970 ft., top main oil sand body 8,050 ft.

Long Beach, Los Angeles County: Apex Pet. Co. 27 Kirkpatrick, 19-4s-12w, pumped 170 bbl., 21-gravity, 40 per cent cut, T.D. 3,560 ft., perf. 3,488-3,555 ft., completed in Alamitos zone of Pliocene age.

Hilldon Oil Co. 2 Flood Control, 13-4s-13w, pumped 159 bbl., 24.1-gravity, 0.5 per cent cut, T.D. 8,137 ft., redrilled 5,441 ft., perf. 5,191-5,213 ft., 5,234-56 ft., 5,357-98 ft., recompleted in Hilldon zone of Pliocene age.

Seal Beach, Orange County: 21 Bryant, 11-5s-12w, pumped 78 bbl., 29.1-gravity, 4 per cent cut, T.D. 5,687 ft., P.B. 5,640 ft., perf. 5,575-5,639 ft., deepened from 4,873 ft. and recompleted in Selover zone.

Torrance, Los Angeles County: W. G. Brayton 1 Capitol, 30-4s-13w, pumped 100 bbl., 18.5-gravity, 4 per cent cut, T.D. 5,301 ft., P.B. 5,235 ft., redrilled 3,665 ft., perf. 3,465-3,665 ft., recompleted in equivalent of Ranger zone.

Whittier, Los Angeles County: Fullerton Oil Co. 8 La Habra, 25-2s-11w, pumped 100 bbl., 14.2-gravity, 30 per cent cut, T.D. 3,606 ft., P.B. 2,830 ft., perf. 2,253-2,331 ft., 2,350-2,465 ft., 2,741-2,819 ft., completed in Whittier zone of Pliocene age.

Wilmington, Los Angeles County: Continental Corp. 11 L.A.C.F.C., 2-5s-14w, pumped 428 bbl., 15.6-gravity, 1.2 per cent cut, T.D. 3,188 ft., gravel-packed perf. 2,784-3,187 ft., completed in Ranger zone.

Mitchell & Son 1 Lagoon, 32-4s-13w, pumped 170 bbl., 17.3-gravity, 5 per cent cut, T.D. 3,725 ft., gravel-packed perf. 3,020-3,140 ft., 3,180-3,310 ft., 3,470-3,629 ft., 3,662-3,720 ft., completed in Ranger zone.

Richfield 17 Pacific Dock, 35-4s-13w, pumped 86 bbl., 18.3-gravity, 30 per cent cut, T.D. 3,295 ft., redrilled 3,296 ft., gravel-packed perf. 3,001-3,290 ft., recompleted in Ranger zone.

Seashore Oil Co. 5 Harbor, 4-5s-13w, flowed 1,640 bbl., 18.2-gravity, 2 per cent cut, 128/64-in. bean pressures 50/250 lb., T.D. 3,639 ft., gravel-packed perf. 2,770-2,900 ft., 3,000-50 ft., 3,110-3,200 ft., 3,250-3,460 ft., 3,500-3,620 ft., completed in Ranger zone.

Selegna Pet. Corp. 8 Harbor, 32-4s-13w, pumped 140 bbl., 17.2-gravity, 5 per cent cut, T.D. 3,605 ft., redrilled 3,595 ft., perf. 2,671-2,824 ft., 2,894-3,145 ft., 3,244-3,593 ft., recompleted in Ranger zone.

Union Pacific R. R. 188 fee, 3-5s-13w, flowed 729 bbl., 30.7-gravity, 0.2 per cent cut, 50,000 cu. ft. gas, 38/64-in. bean, pressures 225/320 lb., T.D. 3,969 ft., perf. 3,705-68 ft., 3,790-3,831 ft., 3,901-63 ft., completed in Terminal zone of Pliocene age.

Union Pacific R. R. 189 fee, 3-5s-13w, flowed 199 bbl., 24.3-gravity, 0.2 per cent cut, 20,000 cu. ft. gas, 38/64-in. bean, pressures 194/700 lb., T.D. 2,783 ft., perf. 2,549-2,614 ft., 2,632-96 ft., 2,718-61 ft., completed in Ranger zone.

### LOS ANGELES BASIN OUTPOSTS OR DEEP TESTS

Dominguez, Los Angeles County: Lebow-McNee Oil Co. 1 Bouska, 29-3s-13w, drilling 4,962 ft. in sand and shale, first well west of Main Street, elev. 35 ft.

Hiles-Crawford and associates 1 Willis, 29-3s-13w, drilling in oil sand and shale 7,253 ft., cleaning out, elev. 35 ft.

R. E. Havenstrite 7 Larronde, 29-3s-13w, drilling 6,083 ft. in sand, elev. 40 ft.

Hileford associates 1 Developers, 29-3s-13w, foundation.

Johnson and Richardson 1 Clemar, 29-3s-13w, T.D. 7,253 ft. in oil sand and shale, would not flow, elev. 35 ft.

M.P.R. Oil Co. 1 Barnett, 29-3s-13w, T.D. 7,256 ft. in oil sand, testing, elev. 32 ft.

West Dominguez associates 1 Gross, 29-3s-13w, T.D. 7,302 ft. in gray sand, redrilled 7,249 ft. in oil sand, tested wet, second time, elev. 35 ft.

Inglewood, Los Angeles County: R. R. Bush Oil Co. 1 Merchants, 7-2s-14w, drilling oil sand and sandy shale 8,902 ft., elev. 190 ft.

R. R. Bush Oil Co. 1 Smith, 7-2s-14w, T.D. 8,188 ft. in sand and shale, milling on bit, Nodular shale 8,100 ft., elev. 185 ft.

Federal Oil Co. 2 Smith, 7-2s-14w, T.D. 8,174 ft. in oil sand, flowed small amount of oil by heads, Nodular shale 7,800 ft., elev. 215 ft.

Oscar Howard 1 Valenzuela, 7-2s-14w, drilling 8,077 ft. in oil sand, top Nodular shale 7,822 ft., top oil sand 7,995 ft., elev. 135 ft.

Jergins Oil Co. 2 Howard, 7-2s-14w, location graded

Royalty Service Corp. 1 Marlow, 8-2s-14w, drilling in sand 8,630 ft., elev. 381 ft.

Texas 8 Smith, 7-2s-14w, rigging up and preparing to spud.

Tide Water Associated 70 Vickers, 8-2s-14w, rig.

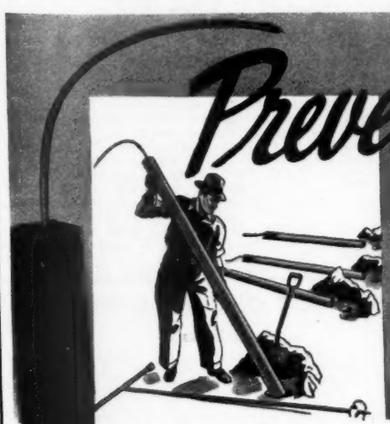
Traders Oil Co. 1 Bush, 8-2s-14w, graded location

Rosecrans, Los Angeles County: R. S. Lytle 1 Anderson, 1-3s-14w, T.D. 8,175 ft., cleaning up debris, elev. 232 ft.

### LOS ANGELES BASIN WILDCATS

Chino district, San Bernardino County: Prado Pet.

*(Continued on Page 69)*

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## NORTH CENTRAL TEXAS

# Two New Fields, Two Sands, One Field Extended in Week

By R. MARNE SANFORD

WICHITA FALLS, Tex., July 21.—Two wildcats indicating new discoveries, two other tests showing for new pay zones in established fields, a small south extension to an Archer County pool, and the location of five new wildcats kept activity in this district brisk and varied throughout the week.

A new Caddo lime pool for northeastern Young County was in prospect as the week closed. L. T. Burns 1 Ragland, Block 257, T.E.&L. Survey, 2½ miles northeast of True had topped heavily saturated Caddo lime and on a drill-stem test recovered 10 ft. of free oil and 50 ft. of oil-cut mud and a good show of gas. The lime section was drilled from 3,970 ft. to 4,052 ft. However, the wildcat was originally staked for the Mississippi lime and will be carried to that depth before final completion is made.

In Jack County, 8 miles northwest of Jacksboro, Bob Elmore of Fort Worth had shut down 1 C. A. Myers, N. F. Rudnose Survey, to run pipe for testing. The wildcat drilled into saturated sand at 2,386 ft. and carried it to 2,395 ft. The test is 1,227 ft. northwest of a 3,450-ft. discovery brought in by Hanlon-Buchanan 3 years ago.

A second Ellenburger, Lower Ordovician, lime production for the old Electra pool of Wilbarger and Wichita counties, had been assured in the Magnolia Petroleum Co. 79-DD Burnett, Block 6, S. Burnett Survey, west central Wichita County. This test, an old producer drilled deeper, topped the lime section at 3,626 ft. and carried it to 3,635 ft., the entire section showing saturation. The test was treated with 6,000 gal. of acid and when opened for potential test flowed 40 bbl. of oil in 2 hours.

The third pay section for the Big Six pool of eastern Wilbarger County was opened by the Big Six Oil Co. 1 Orr, Section 2, Block 14, H.&T.C. Survey. The discovery was completed for a daily potential of 175.72 bbl. of oil and 138 bbl. of water, producing through 24 perforations in a lime section from 3,306 to 3,310 ft., with total depth of 4,400 ft., plugged back to 3,384 ft. The well is a south offset to the firm's discovery, 1 A. P. Morris, which produces from the Canyon series at 2,898 to 2,911 ft.

A new producer and small south extension for the Kadane-Griffin Strawn sand pool of northwestern Archer County this week was the Kadane Interests 1-C Griffin, Block 12, Palo Pinto County School Lands Survey. When the plug was drilled, the well flowed at the rate of 40 bbl. of oil per hour from the sand at 4,376 to 4,379 ft. At last reports preparations were being made for completion.

### Three Wildcats for Wilbarger County; One Each for Young and Jack Counties

Three deep wildcats have been announced in Wilbarger County. Phillips Petroleum Co. staked 10 John Bates, 330 ft. from the north and west lines of the NW of Section 43, Block 4, H.&T.C. Survey, for a 4,000-ft. rotary test. The wildcat is 14 miles southeast of Harrold and will be taken to the Ellenburger lime.

The same company has also staked 4 M. Servatius 330 ft. from the west and 990 ft. from the south lines of an 80-acre lease in the SE of Section 78, Block 14, H.&T.C. Survey. The wildcat is contracted to 4,400 ft., or Ellenburger lime.

Four miles northeast of Vernon, F. H. E. Oil Co. of Fort Worth will drill a 5,000-ft. rotary test. The wildcat, 1 A. Allison, is located 467 ft. from the north and west lines of the Allison tract, in the NW cor. of Section 54, Block 12, H.&T.C. Survey.

Deep exploration is also being undertaken in Young County. L. T. Burns, who recently completed a discovery well from the 4,900-ft. Mississippi zone, has staked location for 1 Mrs. J. K. Jaffery in the northeast quarter of Block 47, T.E.L. Survey, 3½ miles southwest of the discovery well, 1 Larrimore. The wildcat will be drilled to 5,000 ft., contract depth.

In Jack County Ben Rankin and Elliott Producing Co. will drill 1 W. T. Stewart, 660 ft. from the east and 738 ft. from the south lines of Block 2799, T.E.&L. Survey, 5 miles northwest of Jermyn. The wildcat is contracted to 4,400 ft. and will be drilled with rotary.

### NORTH TEXAS COMPLETIONS

#### Wildcats

Clay County: J. B. Cunningham 1 J. P. Boddy, 1,670 ft. from SE and SW lines of H.T.&B. Sur. A-222, dry at 1,405 ft.

Cooke County: Harvey Drlg. Co. 1 Ware, W. W. Crisp Sur. A-221, 72 bbl. in 24 hr., pumping natural, 2,221-27½ ft.

Moss Holmes 1 Coffee, L. P. Tipton Sur. A-1608, dry at 2,528 ft.

Sinclair Prairie 1 Danglemeyer, W. W. Simpson Sur. A-966, dry at 2,784 ft.

Throckmorton County: Rathke Oil 1 Swagerty, Sec. 258, B.B.B.&C. Sur., dry at 5,307 ft.

Wichita County: E. C. Harlin, Jr., Tom B. Medders 1 Hansard, H. C. Taylor Sur. A-285, dry at 1,355 ft.

Young County: T. D. Humphrey 1 Williamson, Sec. 601, T.E.&L. Sur., 112 bbl. in 3 hr., flowing, est. 400 bbl. daily, 5,000 gal. acid, top Caddo 3,985 ft., Ellenburger 5,165 ft., pay from Mississippian 4,980-5,055 ft., P.B. to 5,040 ft., T.D. 5,246 ft.

D. B. Holland 1 Lisle, Sec. 112, T.E.&L. Sur., dry at 803 ft.

### SUMMARY OF COMPLETIONS

*North Texas*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil: Bryson | 2 | 305 | 6,277 |
| K.M.A. | 6 | 2,031 | 23,106 |
| Voth | 3 | 38 | 4,250 |
| Other fields | 6 | 1,038 | 20,368 |
| Miscellaneous pools | 16 | 1,477 | 20,536 |
| Wildcats | 2 | 472 | 7,474 |
| Dry: Olney | 3 | ..... | 2,059 |
| Other fields | 2 | ..... | 8,421 |
| Miscellaneous pools | 7 | ..... | 9,192 |
| Wildcats | 5 | ..... | 11,654 |
| Total | 52 | ..... | 113,437 |

*West Central Texas*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil: Fields | 5 | 1,538 | 12,830 |
| Miscellaneous pools | 1 | 94 | 1,596 |
| Dry: Wildcats | 8 | ..... | 16,772 |
| Total | 14 | ..... | 31,198 |

#### Fields

Antelope, Clay County: Shell 12 Henderson, 225 bbl. in 8 hr., 2-in. casing outlet, est. 600 bbl. daily, 3,150-80 ft.

Bryson, Jack County: Three Bee Investment Co. 2 Rhodes C, 240 bbl. in 16 hr., ½-in. choke, est. 275 bbl. daily, 3,213-54 ft.

Panhandle Ref. 7 Daniels & Eaton, 30 bbl. in 24 hr., pumping, 20-qt. shot, 3,015-23 ft.

Fargo, Wilbarger County: Amerada Pet. Corp. 2 Dodson, 45 bbl. in 3 hr., ½-in. choke, est. 190 bbl. daily, 4,010-34 ft.

Hull-Silk, Archer County: Helmerich & Payne 8 Shephard, dry at 3,999 ft.

H. S. Gray 5 Taylor, 3 bbl. in 24 hr., pumping, 1,608-25 ft.

Hults & Owens, Montague County: H. G. Marshall 1 Bullard, 15 bbl. oil and 14 bbl. water in 8 hr., pumping, est. 30 bbl. oil and 25 bbl. water daily, 17,000 gal. acid, P.B. to 6,037 ft., T.D. 6,338 ft.

Kadane, Archer County: Phillips 1 Griffin "Johnie," 58 bbl. in 3 hr., ⅜-in. choke, est. 190 bbl. daily, 4,367-75 ft.

K.M.A., Wichita County: Bishop Oil 1-D Waggoner, 52 bbl. in 3 hr., pumping, est. 150 bbl. daily, top K.M.A. 3,678 ft., perf. casing 3,678-3,706 ft., 4,000 gal. acid, T.D. 3,820 ft.

Deep Oil Dev. 1-Ellb. Bradley, 125 bbl. in 3 hr., ¾-in. choke, est. 350 bbl. daily, top Ellenburger 4,211 ft., pay 4,216-4,320 ft.

Shell 17 Preston A, junked hole 4,422 ft.

Tide Water and Perkins-Cullum 2-Ellb. Pettit, 99 bbl. in 3 hr., ¼-in. choke, est. 450 bbl. daily, top K.M.A. 3,768 ft., Caddo 4,049 ft., pay 4,368-4,451 ft.

Coppock & Coleman 6 Warren, 81 bbl. in 24 hr., pumping, 1,760-63 ft.

Shell 24 Griffin, 195 bbl. in 3 hr., ¾-in. choke, est. 750 bbl. daily, 3,000 gal. acid, top Ellenburger 4,193 ft., pay 4,329-54 ft.

Fain-McGaha 1-Ellb. C, 96 bbl. in 3 hr., ½-in. choke, est. 250 bbl. daily, top Ellenburger 4,260 ft., pay 3,893-12 ft., T.D. 4,398 ft.

Nocona, Montague County: J. M. Hawley 8 Bouldin "Crow," 25 bbl. in 24 hr., 12-qt. shot, 808-16 ft.

Olney, Young County: F. E. Butler 1 Ward, dry at 603 ft.

Hayden Farner 1 Boone, dry at 608 ft.

F. J. Albrittian 8 Perkin, dry at 848 ft.

Voth, Cooke County: H. E. DeLee 1 Rosson, 14 bbl. in 24 hr., pumping, 5-qt. shot, 1,112-17 ft.

C. J. Bohner 8 Sicking, 12 bbl. in 24 hr., pumping natural, 1,607-09 ft.

C. J. Bohner 9 Sicking, 12 bbl. in 24 hr., pumping natural, 1,623-24 ft.

#### Miscellaneous Pools

Archer County: Shell 1 Coleman C, 376 bbl. in 6 hr., flowing, est. 950 bbl. daily, 3,000 gal. acid, top Caddo 5,024 ft., pay 5,118-24 ft.

Young & Woody 7 Meade, dry at 968 ft.

Pet. Prod. 10 King, 52 bbl. in 24 hr., 1,237-45 ft.

Baylor County: British American Oil 9 Turberville, 228 bbl. oil and 57 bbl. water in 24 hr., pumping and flowing, 500 gal. acid, 2,507-08 ft.

Clay County: P. C. Burns 1 Patrick, dry at 1,112 ft.

C. Y. Gorman 3 Taylor, 30 bbl. in 24 hr., pumping natural, 1,124-39 ft., P.B. from 1,143 ft.

Perkins & Cullum 11 Taylor A, 18 bbl. in 3 hr., pumping natural, est. 65 bbl. daily, 1,047-60 ft.

W. H. Metzner 1 Myers, dry at 1,329 ft.

George G. Golden 2 First Texas Joint Stock Land Bank B, dry at 1,190 ft.

Harper & Knappenberger 1 Bilbrey, 20 bbl. in 24 hr., pumping natural, 1,167-79 ft.

Cooke County: Kingery Bros. 11 Johnson, 15 bbl. in 24 hr., pumping natural, 1,190-1,210 ft.

Thomas Nix 2 Flusche, 17 bbl. in 24 hr., pumping natural, 793-98 ft.

Trumter Pet. Corp. 8 Stacey B, 17 bbl. in 24 hr., pumping, 769-76 ft.

Trumter Pet. Corp. 9 Stacey B, 16 bbl. in 25 hr., pumping, 779-85 ft.

Kewanee Oil 16 Timmis B, 18 bbl. in 24 hr., pumping, 20-qt. shot, 1,409-14 ft., P.B. to 1,592 ft., T.D. 1,620 ft.

Jack County: B. C. Gilmore 2 Moore, 6 bbl. in 24 hr., pumping natural, 406-14 ft., 428-29 ft.

B. C. Gilmore 1 McDonald, dry at 583 ft.

Throckmorton County: Coleman 1 McDeitchen, 10 bbl. in 24 hr., flowing, est. 750,000 cu. ft. gas per day, 632-74 ft., T.D. 687 ft.

Wichita County: G. M. Shaner 6 Waggoner B, dry at 522 ft.

G. M. Shaner 5 Waggoner B, 8 bbl. in 24 hr., pumping, 345-57 ft.

Hanlon-Buchanan 4 Burnett A, 10 bbl. in 24 hr., pumping, 708-22 ft.

Wilbarger County: Paradise Oil 5 Waggoner A, 15 bbl. in 3 hr., pumping, est. 50 bbl. daily, 15-qt. shot, 1,881-93 ft.

Young County: Christie Bros. 1-D Craig, dry at 3,488 ft.

### NORTH TEXAS ACTIVE WILDCATS

Archer County: Jack E. Kadane 1 A. Schlabs, 330 ft. from N and E lines of W 30.38-ac., Lot 48, Blk. 3, Clark & Plumb Sur., 4,100-ft. rotary test, drilling 3,145 ft.

Ted Norwood 1 Mankins, 2,190 ft. from N and 450 ft. from E lines, Sec. 2, S.P. Sur. A-844, 1,850-ft. rotary test, drilling 1,655 ft.

Clay County: Bridwell Oil 1 Myers (old well drilling deeper), Charleton Thompson Sur. A-444, old T.D. 6,065 ft., running 5½-in. casing to 5,983 ft.

Royal Pet. 1 Hatfield, 440 ft. from S and E lines, W. G. Glass Sur., 6,000-ft. test, drilling 1,826 ft.

Seitz, Comegys & Seitz 1 J. B. Dunn, 1,100 ft. from W and 330 ft. from N lines of S 126.5 acres of N 268 acres in J. B. Dunn 568-acre tract, R. R. Brown Sur. A-14, 2,500-ft. test, first report.

Superior Oil 1 Seigler, 467 ft. from S and E lines of 120 acres, Sec. 3211, T.E.&L. Sur., 5,600-ft. rotary test, rigging up.

Cooke County: C. J. Bohner 1 Wickliff, 330 ft. S and W of NE cor. S 40.45 acres of W 80.9 acres of E 182 acres of Israel Gable Sur. A-420, drilling 1,910 ft.

Dickson Oil and R. B. George 1 R. B. George, 330 ft. from NE NW E 40 acres, R. B. George farm, James Bradshaw Sur. A-29, drilling 1,005 ft.

Paul Stevenson 1 J. T. Donald, 650 ft. from NE and 2,050 ft. from NW of E cor. of J. Cuffey Sur. A-1545, but in the T. B. Hardwick Sur. A-1599, 3,000-ft. rotary test, first report.

E. L. Wilson 1 M. Gwyn, 330 ft. from S and SW lines of H. Jennings Sur. A-531, 1,800-ft. test, first report.

Denton County: D. S. Hager 1 O. A. Koenig, 1,492 ft. from E and 457 ft. from S lines of B. F. Perry Sur. A-1277, 2,000-ft. rotary test, first report.

Jack County: Alma Oil 1 Maxey, V. W. Maxey Sur., flowed small heads of oil after standing several hours, installing pumping unit, T.D. 5,392 ft.

Hill and Hill 1 Kinder, 467 ft. from E and 150 ft. from S lines B.S.&F. Sur. A-2351, 2,300-ft. cable-tool test, set 7-in. casing at 2,240 ft., drilling 2,241 ft.

F. Kirk Johnson 1 E. J. Shawver, 660 ft. from S and 520 ft. from E lines NW SE J. Turner Sur. A-609, 5,500-ft. test, drilling 2,970 ft.

O. J. Perrin 1 Brumbelow, 1,045 ft. from S and 720 ft. from E lines H. C. Ayers Sur. A-4, fishing cones at 5,135 ft.

Montague County: Benson Bros. 1 J. J. Lowrey, 1,878 ft. from W and 1,506 ft. from S lines, Sec. 72, A. Beason Sur. A-20, 6,200-ft. rotary test, rigging up rotary.

Walter H. Gant 1 Will Laird, 467 ft. from S and E lines, SW cor. F. Cook Sur. A-139, but in R. T. Millard Sur. A-470, testing on pump, T.D. 6,651 ft.

Walter H. Gant 1 John Turner, 330 ft. from N and E lines, Sec. 59, E.T. Sur., drilling 2,868 ft.

Shell Oil 1 Alice Thomas, 1,255 ft. from W and 467 ft. from S lines, Sec. 95, Kaufman County School Lands Sur. A-407, 5,000-ft. test, derrick and moving in material.

Superior Oil 1 Wilmer Sealy A, 950 ft. from W and 330 ft. from S lines, A. B. Morton Sur. A-1175, 5,700-ft. rotary test, drilling 2,140 ft.

Throckmorton County: Helmerich & Payne 1 Housley, 660 ft. from S and E lines, Sec. 300, B.B.B. &C. Sur., 4,200-ft. rotary test, top Caddo 4,190 ft., set 7-in. casing at 4,190 ft., T.D. 4,223 ft.

Young County: W. A. Buttram 1 Ferguson, 768 ft. from N and 150 ft. from E lines L. W. Smith Sur. A-1822, 600-ft. cable-tool test, location.

Consolidated Oil 1 Dunigan, 467 ft. from S and E lines, Sec. 163, T.E.&L. Sur., 5,000-ft. test, rigging up spudder to drill deeper, T.D. 4,949 ft.

R. P. Dorian 1 Daniels, 330 ft. from S and W lines, Sec. 421, T.E.&L. Sur., 5,000-ft. test, top Mississippi 4,756 ft., Ellenburger 4,920 ft., setting 7-in. casing 4,935 ft., T.D. 4,945 ft.

F. H. E. and Fleming-Kimbell Corp. 1 Graham, SE cor. Sec. 2912, T.E.&L. Sur., 5,000-ft. test, perf. casing 4,803-12 ft., 4,657-70 ft., slight show oil, 500 gal. acid, swabbed mud with show oil.

Shell Oil 1-A Bloodworth, Sec. 151, T.E.&L. Sur., 6,200-ft. test, retreated with 6,000 gal. acid, swabbed 61 bbl. oil and 32 bbl. water in 22 hr., installing pumping unit.

## Fisher County Wildcat Comes In as Small Pumper

FORT WORTH, Tex., July 21.—For the first time in several weeks activity in this district showed signs of slowing down. One wildcat was completed in Fisher County and three outposts were staked to pools in Taylor, Jones, and Shackelford counties.

Wildcat operations in Fisher County added a small pumper at the end of the week with F. A. Stevenson et al completing 1 Lester Maberry for 151 bbl. in 24 hours. Operators acidized in the lime section from 3,328 to 3,335 ft. with 1,000 gal. in an attempt to make the well kick off. The well is in the NE cor. Section 52, Block 1, H.&T.B. Survey, ½ mile southwest of a wildcat well brought in last January by the same operators.

The first outpost to the new Taylor County shallow pool opened last month by W. H. Peckman 1 Buel Perry was staked by Lewis Production Co. as 1 L. L. Huddleston. The outpost in three locations east of the discovery well and in the northwest corner of Lot 6, League 124, Grimes County School Lands Survey. Scheduled for spudding by August 1, 1 L. L. Huddleston is contracted to 2,800 ft. No. 1 Buel Perry is producing from 13 ft. of sandy lime in the Dothan formation at 2,006-19 ft.

In east central Jones County Fain & McGaha will attempt a short west spread to the original Lewis pool. The operators have staked 1 Burns in the west part of the SE Section 38, Block 15, T.P. Survey.

The Shotwell area of southwestern Shackelford County has been given a new outpost location. F. O. Akin has staked 1 E. F. Shotwell in the SE Section 55, Block 14, T.P. Survey. The test is 1¼ miles northeast of production and is contracted to 2,000 ft.

### WEST CENTRAL TEXAS COMPLETIONS

**Wildcats**

Coleman County McKissick & Robertson 1 W. H. Finley, 467 ft. S and 934 ft. W of SW cor. Sec. 22, Blk. 2, T.&N.O. Sur., but in Sec. 45, B.B.B.&C. Sur., dry at 5,526 ft.

Callahan County: W. D. Austin 1 I. N. Jackson, Sec. 2, C.&M. Sur., dry at 1,210 ft.
F. E. McCreedy 1 A. R. Kelton, Sec. 148, B.B.B.&C. Sur., dry at 828 ft.

Eastland County: Sims Drlg. Co. 1 E. A. Vernon, Sec. 9, Blk. 2, H.&T.C. Sur., dry at 1,560 ft.
Thomason & Heydrick 1 W. I. Beal, 150 ft. from N and W lines of SW of SE quarter of J. W. Clifton Sur. A-187, dry at 610 ft.

Jones County: M.C.L. Corp. 1 Swanson, Sec. 187, B.B. B.&C. Sur., dry at 3,350 ft.

Shackelford County: E. M. Doloach 1 W. I. Cook, Sec. 64, E.T. Sur., dry at 1,450 ft.

Taylor County: C. J. Kleiner 1 I. N. Jackson, Alex. Thompson Sur. 20, dry at 2,238 ft.

**Fields**

Akard, Jones County: Heydrick Oil 2 Akard E, 193 bbl. in 20 hr., open tubing, est. 200 bbl. daily, 2,130-37 ft.

Echo, Coleman County: Anzac Oil 2 Morris F, 179 bbl. in 15 hr., est. 225 bbl. daily, 2,188-2,207 ft.

Lewis, Jones County: Butler & Horne and U. L. Miller 1 Lenderman, 79 bbl. in 7 hr., ¼-in. choke. est. 240 bbl. daily, 40-qt. shot 1,910-23 ft.

Noodle, Jones County: Humble 1 Huddleston C, 786 bbl. in 24 hr., natural, 3,014-20 ft.

Novice, Coleman County: Robert McKissick 10-A Morris, 87 bbl. in 24 hr., 30-qt. shot, 3,518-43 ft.

**Miscellaneous Pools**

Shackelford County: Daniel & Pardue 17 Davis, 94 bbl. in 24 hr., 1,578-87 ft., T.D. 1,596 ft.

### WEST CENTRAL TEXAS ACTIVE WILDCATS

Brown County: Claude Campbell 1 J. D. Smith, 330 ft. from N and 1,215 ft. from W lines, Sec. 1, Waco Manufacturing Co. Sur., 1,000-ft. cable-tool test, drilling 805 ft.
H. P. Evans 1 Starkley, SE SE Sec. 3, H. C. Walker Sur., 1,200-ft. test, drilling 593 ft.
Frank L. Walker 1 Cox & McInnis A, 2,018 ft. from NE and 1,640 ft. from SE lines, Samuel Barrows Sur. 27, 1,300-ft. cable-tool test, S.D. 895 ft.

Coleman County: McMillan & Rominger 1 Wilkerson, 1,570 ft. from N and 257 ft. from W lines of Sec. 3, Blk. 2, G.H.&H. Sur., 2,800-ft. test, drilling 1,470 ft.
States Oil Corp. 1 O. B. Featherstone, 467 ft. from N and W lines, M. J. Gable Sur. 118, 3,600-ft. rotary test, drilling 2,620 ft.
States Oil 1 Sealy & Smith, NE 160 acres of J. Greenwood Sur. 304, drilling 3,270 ft.
West Coast Prod. Corp. 1 Morris, SW cor. of NE 160 acres of J. Greenwood Sur. 304, S.D. 2,915 ft., orders.

Comanche County: L. H. Choate 1 Pearl Kirk, 467 ft. from S and E lines, P. D. Crump Sur. A-1905, 5,000-ft. cable-tool test, first report.
W. G. Forson 1 T. G. Sliger, SW cor. of tract in John Harrison Sur. A-433, 3,500-ft. test, drilling 310 ft.
O. L. Stutenrouth 1 Pearl Kirk, 660 ft. from N and 2,820 ft. from S lines, John Talbot Sur. A-941. 2,800-ft. cable tool test, 80-qt. shot 2,554-2,602 ft., 2,000 gal. acid, flowed 55 bbl. oil in 7 hr., testing, T.D. 2,602 ft.
C. D. Lane 1 J. R. Eanes & Co., 660 ft. from N and 150 ft. from E lines, SW Sec. 45, E.T. Sur. 1,000-ft. cable-tool test, first report.

Concho County: Floyd C. Dodson 1 Robert Wilson, Thomas Green Sur., 10 mi. SW of Eden, S.D. 4,090 ft., orders.
C. M. Joiner Leasing Corp. 1 G. R. Armor, 1,315 ft. from S and 330 ft. from W lines, Sec. 105, Blk. 72, T.&N.O. Sur., old well drilling deeper, old T.D. 1,565 ft., cementing off cave-in at 1,935 ft.
Nixon & Abernathy 1 Riley, 585 ft. from S and 819 ft. from E lines, Sec. 1705, G. C. F. Blanchard Sur. A-1225, 2,200-ft. cable-tool test, S.D. 100 ft.

Eastland County: Bryan & Stewart 1 Hall, 330 ft. from N and E lines, SE Sec. 46, Blk. 2, H.T.&B. Sur., drilling 2,430 ft.
Dobbs Oil 1 L. A. Hightower, NE SE Sec. 4, Blk. 3, H.&T.C. Sur., 3,100-ft. test, P.B. to 3,288 ft., treated with 1,000 gal. acid, cleaned out with slight show oil and gas, T.D. 3,310 ft.

Fisher County: P. R. Long 1 Maberry, SE cor. A. A. Soring Sur., 2 mi. SW of McCaully, tested at 3,238-68 ft., S.D. 3,289 ft.
Shell Oil 1 Vaughn, 467 ft. from N and 1,787 ft. from W lines, Sec. 205, Blk. 21-V, H.&T.C. Sur., 7,250-ft. test, first report.

Hamilton County: Butler & Horne Drlg. Co. 1 Wimberly, 330 ft. from S and W lines of 200-ac. farm in Guadalupe Martinez Sur., 2,700-ft. test, first report.
T. J. Coyne 1 L. E. Clyburn, SW cor. tract in Lots 24 and 27, Holt subd. of Henry Millard Sur. 243, 2,000-ft. test, S.D. 1,508 ft.

Jones County: Danciger Oil & Ref. 1 E. H. Reeves, 330 ft. from W and 1,600 ft. from S lines of 460-ac. farm in E½ Maria Rita Longoria Sur. 258, 2,600-ft. test, first report.
M. J. Delaney 1 Short, 467 ft. from S and E lines of SW Sec. 191, B.B.B.&C. Sur., 3,300-ft. rotary test, preparing to test, T.D. 3,245 ft.
T. D. Humphrey 1 Mary L. Triplett, 3,050 ft. from N and 330 ft. from W lines, James Goocher Sur. 199, 2,500-ft. test, first report.

McCullough County: C. M. Joiner 1 S. A. Lawson, 860 ft. from N and 550 ft. from E lines of Valentine Hohman Sur. 1093, 2,000-ft. test, drilling 622 ft.

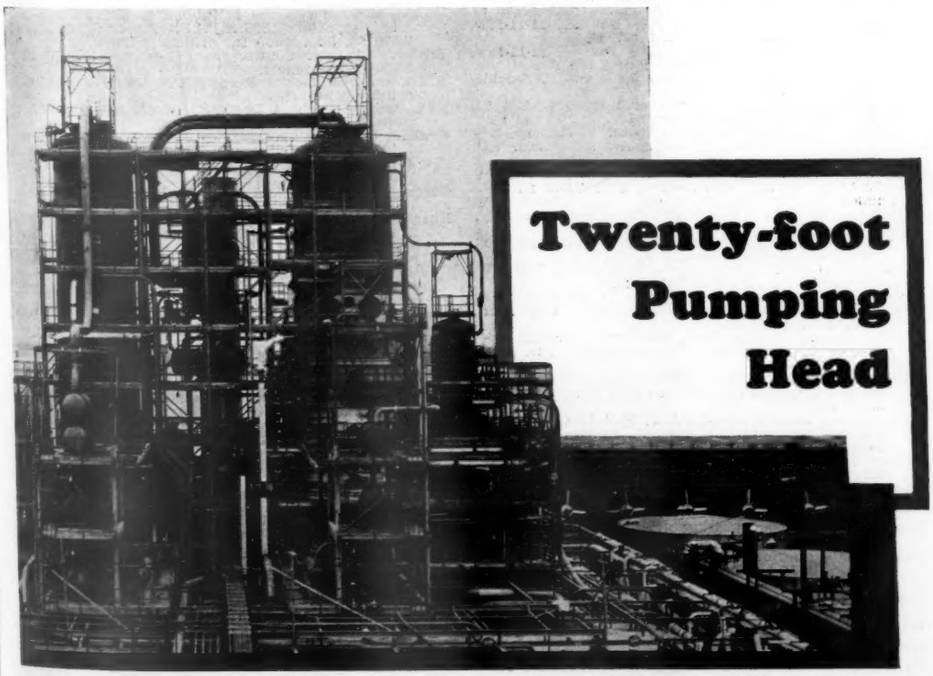
Mills County: Three Widows Oil 1 Burdett, 467 ft. from N and W lines, Lot 59, Hayes C.S.L. Sur., 3,000-ft. test, drilling 1,987 ft.

Palo Pinto County: F. Guyer 1 Dalton, L. B. Dayton Sur. A-153, S.D. 4,008 ft., orders.

Parker County: J. L. Higginbotham 1 Wheeler, SE cor. J. B. Brannon Sur. A-1928, 5,000-ft. test, S.D. 5,025 ft.

Shackelford County: Aragon Oil 1 Walls Pasture, SW cor. Sec. 39, B.A.L. Sur., 4,000-ft. test, drilling 3,553 ft.
L. P. Blosser 1 J. B. Mathews, 750 ft. from S and 150 ft. from W lines, Sec. 35, B.A.L. Sur., 700-ft. cable-tool test, S.D. 526 ft.
Eason Oil 1 J. H. Nall, 220 ft. from S and W lines, Sec. 125, E.T. Sur., 1,500-ft. cable-tool test, underreaming 7-in. casing from 1,123 ft., T.D. 1,345 ft.

*(Continued on Page 65)*

**Twenty-foot Pumping Head**

The 12-cell, 12,000 gallons per minute, forced draft, lowhead cooling tower at the right and the 30,000 bbl. per day distillation unit were erected simultaneously by Foster Wheeler.

**MECHANICAL DRAFT made the lowhead cooling tower practical. Having developed the Axial Flow fan for effective air movement, Foster Wheeler next established the twenty-foot pumping height and evolved air and water distribution systems to use this height effectively.**

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Foster Wheeler Corporation, 165 Broadway, New York, N. Y.

FOSTER WHEELER

# Far-Western Discovery Will Deepen to Test Arbuckle

By ROBERT INGRAM

STANOLIND Oil & Gas Co., which found production from a stray sand in the Cherokee series of the Pennsylvanian in extreme western Kansas at 1 Patterson, SE SE 22-23-38w, started drilling deeper at the discovery well last week for further testing of the structure. Opinion as to the import of the discovery varied, but all were watching results closely. Some believed the test would affect prospecting only in a local area around the test, while others thought it would encourage activity as far west as Colorado and would be related to the Rocky Mountain play.

## SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Big Creek and South | 3 | 210 | 9,312 |
| Burnett | 4 | 12,000 | 13,636 |
| Chase | 1 | 552 | 3,284 |
| Hall-Gurney | 1 | 310 | 3,026 |
| Stoltenberg | 1 | 3,000 | 3,267 |
| Trapp and West | 6 | 4,769 | 20,046 |
| Zenith | 3 | 3,488 | 10,923 |
| Other pools | 18 | 19,302 | 58,721 |
| Gas wells: Fields | 2 | *11.5 | 6,136 |
| Dry holes: Trapp | 1 | ..... | 3,240 |
| Other pools | 4 | ..... | 11,211 |
| Wildcats | 6 | ..... | 15,561 |
| Total | 50 | ..... | 138,363 |

*Million cu. ft.

The test had the Mississippian lime at 4,879-4,902 ft. and at week's end, after 7-in. casing was set at 4,806 ft., crews were rigging up the rotary again to drill to the Arbuckle. On a drill-stem test early in the month in the Cherokee sand at 4,740-60 ft., the hole filled 1,885 ft. with oil in 20 minutes. It tested 35.5 gravity at 78° temperature.

### Phillips and Reno County Discoveries Hold Attention

Field work continued at its fast pace throughout the state, although the number of new wells started dropped off from 56 two weeks ago to 45 last week. Most of the work continued to be concentrated in such areas as Trapp, Hall Gurney, Burnett, Big Creek and Zenith.

Most likely broad new areas appeared to be in Stafford and Reno counties, where the Viola lime trend was being proved up both east and west of the Zenith pool, and at the far north in Phillips and Norton counties where production was being pushed north from the Ray pool which Cities Service Oil Co. opened and is developing.

With Arbuckle production added to the Reagan sand production at the Ray pool and new areas opened nearby (The Oil and Gas Journal, July 17, 1941), possibilities of the northern area were good.

Arbuckle production at the Ray pool was opened by Cities Service 1 Vehige, SW SW 28-5s-20w, from 3,568-79 ft. The well was given a potential of 2,572 bbl. a day. Originally, the test was drilled to a total depth of 3,654 ft. in pre-Cambrian granite, topped at 3,635 ft. The crude tests 32°.

Last week Lario Oil & Gas Co. 1 Lynch, S½ SE SW 24-4-20w, also in Phillips County, had prospects of opening a new pool in the Lansing-Kansas City lime series. The well swabbed 1½ bbl. of oil and 45 bbl. of water a day from perforations at 3,246-59 ft. and 3,318-21 ft., and operators were to cement off the bottom perforations for further testing. The well went to the granite at 3,843 ft. and drilled to a total depth of 3,848 ft. before plugging back. The Arbuckle was topped at 3,470 ft.

In the Stafford-Reno county sector, Simpson 1 Snowbarger, SW SE NE 21-23-10w, was to make a production test from Viola lime at 3,773-87 ft. High-gravity oil rose to the top of the casing in less than an hour after crews drilled the plug in pipe set at 3,773 ft. after cleaning out a 1,000-ft. water load. It was performing much like the best Viola lime wells in the Zenith pool which are relatively unusual for Kansas in that they flow even though they register low shut-in pressures. Drilling in the Zenith pool itself was going ahead at a fast pace and four wildcat tests were going down in Stafford County and two in Reno (see below).

### KANSAS COMPLETIONS

#### Wildcats

Helmerich & Payne 1 Roth....W½ NW SW 30-19-11w Dry, T.D. 3,404 ft., Arbuckle 3,377-85 ft., P.B. 3,315 ft., show oil in Lansing, Barton County.

Clay 1 Anderson ..... S½ SW SW 28-9-16w Dry, T.D. 3,590 ft., Arbuckle 3,569 ft., P.B. 3,330 ft., show oil, Rooks County.

Epperson 1 Howard.....SE NW 25-13-19e Dry, T.D. 1,205 ft., Mississippian lime 1,197 ft., Douglas County.

Aladdin 1 Wiltrout.....S½ SE NE 18-5-20w Dry, T.D. 3,560 ft., Arbuckle 3,520-60 ft., Lansing 3,239 ft., some show oil 3,242-46 ft., Phillips County.

Lario 1 Bard.....S½ SE NW 27-3-20w Dry, T.D. 3,802 ft., Arbuckle 3,761-3,802 ft., anhydrite 1,845 ft., Phillips County.

Miller 1 Tonkinson ..... W½ SW NW 17-33-5e Location abandoned, Cowley County.

#### Fields

Abbyville, Reno County: Skelly 1 Lincheid, S½ SE NW 24-24-8w, 381 bbl., Kansas City lime, T.D. 3,545 ft.

Big Creek, Russell County: Sherman-Smith 1 M. Niedenthal, S½ SW NW 23-14-15w, swabbed 56 bbl., Gorham, T.D. 3,182 ft.

Ohio 8 Harbaugh, W½ NW NW 25-14-15w, swabbed 52 bbl., Gorham, T.D. 3,224 ft.

South Big Creek, Russell County: Shaffer 1 Voufelt E½ SE NW 6-15-14w, 102 bbl., Kansas City lime, acid, T.D. 2,966 ft.

Burnett, Ellis County: Dickey 5-C Carmichael, N½ SW NW 7-11-17w, 3,000 bbl., Arbuckle, T.D. 3,356 ft.

Berry et al 1 Carmichael, N½ NW SE 11-11-18w, 3,000 bbl., Arbuckle, T.D. 3,427 ft.

Transwestern 1 Carmichael, E½ SW SE 11-11-18w, 3,000 bbl., Arbuckle, acid, T.D. 3,426 ft.

Darby 8-A Peavey, 13-11-18w, 3,000 bbl., Arbuckle, T.D. 3,427 ft.

Chase, Rice County: C. H. Weaver 1 Robbins, E½ SE NW 19-19-9w, 552 bbl., Arbuckle, T.D. 3,284 ft.

Coralena, Russell County: Continental 10 Meharg, N½ S½ NE 17-15-13w, 1,713 bbl., Arbuckle, acid, T.D. 3,288 ft.

Couch, Cowley County: Ryan 3 Kennedy, NW NE SW 12-30-5e, 56 bbl., Bartlesville, T.D. 2,843 ft.

Cunningham, Pratt County: Skelly 4 G. D. Miller, W½ NW NW 36-27-11w, 136 bbl., Lansing-Kansas City, T.D. 3,520 ft.

Beardmore 4 Kemp, N½ NW NW 12-28-11w, 103 bbl., Viola, T.D. 4,267 ft.

Douglas, Butler County: Simpson 3 Lessman, NW NW NW 20-29-4e, dry, T.D. 1,945 ft.

Fairport, Russell County: Liggett et al 1-B Hines, SW NE NW 16-11-15w, 137 bbl., Kansas City lime, acid, T.D. 3,330 ft.

Feltes, Barton County: Day Brothers 1 Schauf, S½ SE SW 11-16-12w, 961 bbl., basal sand, T.D. 3,365 ft.

Greenvale, Russell County: Cities Service 3 Cook, NE SE 4-12-15w, 113 bbl., Kansas City lime, acid, T.D. 3,230 ft.

Hall-Gurney, Russell County: J. J. Hall 14 Guy Miller, E½ SW NE 31-14-13w, 310 bbl., Kansas City lime, acid, T.D. 3,026 ft.

Higler, Reno County: Magnolia 1 Amos Rodgers, SW SE SW 9-26-4w, 2,190 bbl., Viola, T.D. 4,039 ft.

Lanterman, Barton County: Texas 3 Henning, W½ SE NW 22-19-11w, 2,880 bbl., Kansas City lime, T.D. 3,154 ft.

Ohio 1 Musenberg, E½ SE SE 10-19-11w, dry, T.D. 3,396 ft.

Lost Springs, Marion County: Harwood 10 Novak, SE NE NW 28-17-4e, 213 bbl., Mississippian chat, T.D. 2,425 ft.

Ring-Mac 2 Hajek, E½ NE SW 33-17-4e, 314 bbl., Mississippian chat, T.D. 2,414 ft.

Max, Stafford County: Stanolind 3 M. Helmers, E½ NW NW 1-22-12w, 150 bbl., Arbuckle, T.D. 3,559 ft.

McLouth, Leavenworth County: J. B. Apperson 1 McLeod, NE SE SE 5-10-20e, 1,000,000 cu. ft. gas, Bartlesville, T.D. 1,522 ft., Mississippian lime 1,522 ft.

Medicine Lodge, Barber County: Barbara Oil & Gas 3 Holmes-A, SE NE NW 15-33-13w, old well P.B. from 4,868 ft. to 4,788 ft., pay 4,550-90 ft., 11,500,000 cu. ft. gas.

Barbara 6 McKee, C NE 20-33-13w, 10,500,000 cu. ft. gas, Mississippi lime 4,535 ft., T.D. 4,614 ft.

Prusa, Barton County: Shell 3 Harzman, SW NE NW 33-16-11w, swabbed 53 bbl., 3,000 bbl. potential, Arbuckle, acid, T.D. 3,360 ft.

Darby 6 Bernsdorf-Jenke, SE SW NE 33-16-11w, swabbed 70 bbl., 3,000 bbl. potential, Arbuckle, acid, T.D. 3,348 ft.

Ray, Phillips County: Cities Service 3 Ray, SW SE SE 32-5-20w, 261 bbl., Reagan sand, T.D. 3,537 ft.

Rusch, Russell County: Westgate-Greenland 3 Rusch, E½ NE NE 29-14-14w, 694 bbl., Arbuckle, acid, T.D. 3,247 ft.

Cities Service 1 Flegler, W½ SW NW 28-14-14w, 3,000 bbl., Arbuckle, acid, T.D. 3,230 ft.

Stafford, Stafford County: Cities Service 1 Jenkins, E½ SE SW 15-24-12w, dry, T.D. 4,068 ft.

Stoltenberg, Ellsworth County: Derby 1 Lank, SW NE 9-16-10w, 3,000 bbl., Arbuckle, acid, T.D. 3,267 ft.

Trapp, Barton County: T. C. Johnson 11 Bitter, NE NW 8-16-13w, 158 bbl., Arbuckle, T.D. 3,384 ft.

Shell 2-B Batt, NW SE SE 2-16-14w, 1,401 bbl., Arbuckle, acid, T.D. 3,348 ft.

Sinclair Prairie 8 Hoffman, NW SE NE 7-16-13w, 3,000 bbl., Arbuckle, acid, T.D. 3,372 ft.

Shell 1-B Sausen, 12-16-14w, swabbed 47 bbl., Arbuckle, T.D. 3,369 ft.

Derby 2 Berry, N½ SW NE 33-15-13w, swabbed 98 bbl., Arbuckle, T.D. 3,349 ft.

Cities Service 4 Kosar, S½ SW SE 5-16-13w, dry, T.D. 3,420 ft.

West Trapp, Russell County: Phillips 2 Maier, NW NE 15-15-14w, swabbed 65 bbl., Arbuckle, acid, T.D. 3,224 ft.

Woodson County, miscellaneous: Ward McGinnis 2 Keller, SW SW NE 22-26-13e, dry, T.D. 1,802 ft.

Zenith, Stafford County: W. E. Porter 2 Richardson, S½ S½ SW 10-24-11w, 248 bbl., Viola, T.D. 3,827 ft.

Champlin 1 Figger, E½ SE NE 9-24-11w, 3,000 bbl., Viola, T.D. 3,815 ft.

Stanolind 6-A U. G. Ferris, S½ SE SE 15-24-11w, 240 bbl., Viola, T.D. 3,821 ft.

### WILDCAT DRILLING REPORT

#### Western Kansas

Barber County: Pryor & Lockhart 1 Ishmael, S½ SE SW 35-34-11w, good stain 4,698-4,709 ft., base Mississippi 4,764-4,815 ft., 7-in. 4,612 ft., Viola 5,052 ft., rigging up rotary 5,077 ft.

Barton County: Helmerich & Payne 1 Unruh, E½ NE NW 16-20-15w, Arbuckle 3,720 ft., 5-in. 3,725 ft., T.D. 3,741 ft., recemented 5-in. at 3,724 ft.

Branine & Holl 1 Rexroot, E½ NE SE 22-17-13w, Lansing 3,158 ft., drilling 3,370 ft.

Shell 1 Kinzell, SE SE SW 2-18-12w, Neva 2,045 ft., Topeka 2,709 ft., Lansing 3,076 ft., odor oil 3,101-04 ft., dead oil stains 3,159-86 ft. and 3,241-45 ft., conglomerate 3,329 ft., Arbuckle 3,346 ft., some show oil 3,346-49 ft., some show oil and water 3,349-54 ft. and 3,354-64 ft., T.D. 3,364 ft., reaming hole.

Isern 1 Laudick, S½ SE NW 28-16-12w, Topeka 2,780 ft., Lansing 3,116 ft., Arbuckle 3,368 ft., cored 3,371-77 ft. with some show oil, 5½-in. 3,368 ft., T.D. 3,377 ft., standard tools.

Shields 1-A Kimpler, W½ NW NE 31-18-11w, anhydrite 665 ft., drilling 1,070 ft.

W. O. Allen 1 Stoskopf, NW NW NW 29-16-13w, surface hole.

Butler County: Adair & Morton 1 Piper, NE NW NE 36-29-4e, drilling 1,375 ft.

Clyde Barker 1 Hannebohm, NE SW SE 15-24-4e, S.D. 80 ft.

Cowley County: Mead Production 1 McMichael, NW SW SW 35-33-3e, 10-in. 1,558 ft., drilling 1,740 ft.

Marylyn 1 Mosier, NW NW SW 21-34-7e, running 10-in. 1,100 ft.

Steinbuchel 1 Peck, N½ NW SE 23-34-5e, S.D. 1,300 ft., 10-in. 1,200 ft.

Dickinson County: Jones 1 Kuhn, E½ E½ SE 6-16-4e, Mississippi lime 2,328 ft., H.F.W. 2,540 ft., dolomite 2,579 ft., 5-in. 2,579 ft., drilling 2,590 ft.

Edwards County: Continental 1 Beatty, S½ SW 35-25-20w, first report.

Elk County: Allison 1 Porter, NW NE NW 25-28-8e, drilling 1,240 ft.

Ellis County: Darby 1 Dreiling, SE SE NW 28-13-17w, 10-in. 1,203 ft., drilling 2,000 ft.

Graham County: Cities Service 1 Gordon, SE NE NW 1-8-22w, spotted shows in Arbuckle at 3,665-70 ft., 4-in. 3,665 ft., heavy black tar 3,686 ft., H.F.W. 3,686-93 ft., T.D., will test oil shows in Lansing.

Greenwood County: G. A. Fuller 1 Baker, E½ NE SW 17-26-13e, drilling 350 ft.

Kearny County: Stanolind 1 Patterson, E½ SE SE 23-22-38w, Lansing 4,100 ft., Cherokee 4,420 ft., top sand 4,740 ft., base sand 4,751 ft., D.S. test 4,740-60 ft., open 20 min., 1,885 ft. oil and 185 ft. muddy water, gravity 35.5 at 78°, Mississippian lime 4,879-4,902 ft., T.D., 7-in. 4,806 ft., rigging up rotary to deepen to Arbuckle.

Kiowa County: Dr. August Ponath 1 Allerdice, NW NW NE 22-30-19w, first report.

Marion County: Basinger 1 Janseen, NE NE SE 9-21-3e, drilling 150 ft.

McPherson County: Kiowa 1 Reusser, S½ SE SE 26-21-2w, first report.

Norton County: Helmerich & Payne 1 Hewitt, S½ SE NE 11-4-21w, Arbuckle 3,655 ft., granite 3,746 ft., T.D. 3,750 ft., P.B. 3,404 ft. in Lansing, swabbed 65 bbl. in 19 hr., 36 gravity, acid, swabbed 131 bbl. oil and 87 bbl. water in 14 hr., S.D.

Cities Service 1 Federal farm, SE SE SE 15-4s-23w, drilling 2,575 ft.

Phillips County: Lario 1 Lynch, S½ SE SW 24-4-20w, Topeka 2,935 ft., Lansing 3,168 ft., some show oil 3,175-80 ft., show oil 3,250 ft., cored porous oolitic lime, saturated, 3,250-55 ft., cored shale and lime with 1 ft. saturation 3,255-60 ft., base Kansas City 3,381 ft., Arbuckle 3,470 ft., Basal sand 3,812 ft., granite 3,843 ft., T.D. 3,848 ft., 5-in. 3,355 ft., shot 3,246-59 ft. and 3,318-21 ft., acid, bailed 15 bbl. water an hr. plus small show free oil, swabbed 1½ bbl. oil and 45 bbl. water per day, will cement off bottom perf.

Pratt County: Pryor & Lockhart 1 Bergner, NE NE NE 35-29-14w, first report.

Reno County: Simpson 1 Snowbarger, SW SE NE 21-23-10w, Fort Riley 1,715 ft., Florence 1,798 ft., Topeka 2,840 ft., Lansing 3,310 ft., Viola 3,722 ft., cored saturation 3,772-85 ft., 5-in. 3,776 ft., T.D. 2,789 ft., flowed 250 bbl. in 2 hr., gravity 41.5, S.I. for tanks.

Central 1 Dyck, W½ NW SW 4-22-4w, Lansing 2,640 ft., Mississippian lime 3,540 ft., base Mississippian 3,630 ft., drilling 3,732 ft.

Rice County: Bronson 1 Brown, W½ NW SW 2-19-9w, 8-in. 2,235 ft., Topeka 2,590 ft., H.F.W. 3,010-15 ft., Lansing 2,920 ft., 7-in. 3,155 ft., drilling 3,185 ft.

Rooks County: Cities Service 1 Ervay, SE SE SE 2-10-16w, fishing 3,370 ft.

Russell County: Central 1 Gustason, SE NW 14-15-12w, anhydrite 690 ft., drilling 1,860 ft.

Central 1 Steinle, N½ NW NE 29-15-12w, Neva 2,065 ft., 8-in. 2,085 ft., drilling 2,840 ft.

Central 1 Harbaugh, NW NW NW 21-14-12w, drilling 1,850 ft.
Ruso 1 Phillips, SE NE NE 6-14-13w, anhydrite 820 ft., drilling 1,950 ft.
Scott County: Atlantic 1 Smith, NE NE 34-19-33w, drilling 600 ft.
Stafford County: Hamilton & Hawkins 1 Ward, NE NE SW 15-23-13w, anhydrite 765 ft., Fort Riley 1,940 ft., drilling 3,310 ft.
Elbar 1 Curtis, NE NE NE 18-25-13w, anhydrite 824 ft., drilling 2,400 ft.
W. W. Drilling 1-A Wilson, N½ NW NW 5-25-14w, anhydrite 920 ft., Topeka 3,196 ft., Lansing 3,612 ft., show oil 3,840 ft., show oil 3,906-20 ft., Misener 3,951 ft., spotted saturation 3,951-58 ft., Viola 3,958-67 ft., T.D. with saturation, 7-in. 3,948 ft., standard tools 3,967 ft.
Stanolind 1 Black, E½ NE SW 25-24-12w, anhydrite 645 ft., Topeka 3,020 ft., Lansing 3,503 ft., drilling 3,649 ft.
Thomas County: Alva Billings 1 Ryan, E½ NE SE 27-8-32w, Lansing 4,283-97 ft., gas show oil, shot 4,268-83 ft., bailed 1 bbl. fluid an hr., mostly water, P.B. 4,268 ft., S.D.
Woodson County: W. R. Jenner et al 1 Hastings, E½ SE NW 24-26-13e, drilling 400 ft.

**Northeastern Kansas**

Brown County: McAlpine 1 Taylor, NE SW SW 4-3-15e, S.D. 1,550 ft.
Douglas County: Meinholdt & Edwards 1 Stanley, NW NE NW 3-14-21e, Arbuckle 1,716 ft., 5-in. 1,906 ft., granite 2,463 ft., drilling 2,470 ft.
Leavenworth County: Archie 1 Schroeder, SE SW 28-9-20e, Mississippian lime 1,468-72 ft., T.D. 1,472 ft., 140 ft. oil in hole from sand and Mississippian, gravity 21.3, 7-in. 1,442 ft., P.B. 1,468 ft., shot 1,442-68 ft., 1,100 ft. oil in hole in 12 hr., no test.
Black Gold 1 Fevurly, SW SE 1-9-20e, base Oswego 570 ft., drilling 774 ft.
Nemaha County: Bumpus 1 Achten, S½ SE NW 12-4-14e, Mississippi 2,553 ft., show oil 2,560 ft., 7-in. 2,456 ft., S.D. 2,560 ft.

## AVERAGE DAILY PRODUCTION

**LEADING KANSAS FIELDS**

| | July 19 | July 12 |
|---|---|---|
| Augusta | 1,200 | 1,250 |
| Bemis-Shutts | 11,700 | 12,600 |
| Bloomer | 6,300 | 5,650 |
| Burnett | 10,500 | 11,450 |
| Burrton | 6,850 | 6,900 |
| Chase | 6,550 | 5,050 |
| Elbing | 1,050 | 1,100 |
| El Dorado-Towanda | 7,250 | 7,250 |
| Geneseo | 7,550 | 6,900 |
| Graber | 2,850 | 2,450 |
| Greenwood County | 9,100 | 9,050 |
| Hollow-Nikkel | 1,300 | 1,350 |
| Keesling | 1,200 | 1,350 |
| Lerado | 850 | 200 |
| Lorraine | 1,450 | 950 |
| Oxford | 650 | 700 |
| Rainbow Bend | 900 | 950 |
| Raymond | 1,400 | 1,200 |
| Ritz-Canton | 3,950 | 3,900 |
| Trapp | 22,200 | 21,750 |
| Balance Russell County | 24,000 | 23,700 |
| Sedgwick County | 3,000 | 3,100 |
| Voshell | 1,600 | 1,600 |
| Silica | 19,500 | 19,100 |
| Wellington | 1,000 | 1,000 |
| Wherry | 2,350 | 1,900 |
| Zenith | 8,750 | 9,600 |
| Others | 74,050 | 71,800 |
| Total Kansas | 239,050 | 233,800 |

## Falls City, Neb., Production Passes 1,000,000-Bbl. Mark

ST. JOSEPH, Mo., July 21.—Oil production from Richardson County, Nebraska, totaled 1,088,918 bbl. as of July 1. This represents the total since oil was discovered at Falls City on November 1, 1939. Of the total, the Falls City field produced 1,060,332 bbl. and the Shubert field 28,586 bbl. June had the greatest production of any month—148,727 bbl., or a daily average of 4,957 bbl. The Falls City field produced 139,387 bbl. of this amount and the Shubert field, 9,336 bbl. Production is gaining, as is shown by the 3-day period ending June 18, in which the daily average for the county was stepped up to 6,000 bbl. It was indicated at Falls City that this much actually had left the county each day.

Ohio 1 Bucholz was the second well to produce in the Falls City pool and the well for which the State of Nebraska paid the Pawnee Royalty Co. a $15,000 bonus. The Pawnee Royalty Co. drilled the well and others in the pool, but later sold out to the Ohio Oil Co.

The Ohio Oil Co. is deepening two previously drilled wells to the second Hunton lime zone and drilling one new well, the 5 Bahr, in the Falls City pool. Skelly Oil Co. has a new producer in its 4 Davisson. The well went to the second Hunton zone. Little or no news has come from the Shubert pool of Richardson County in the past week.

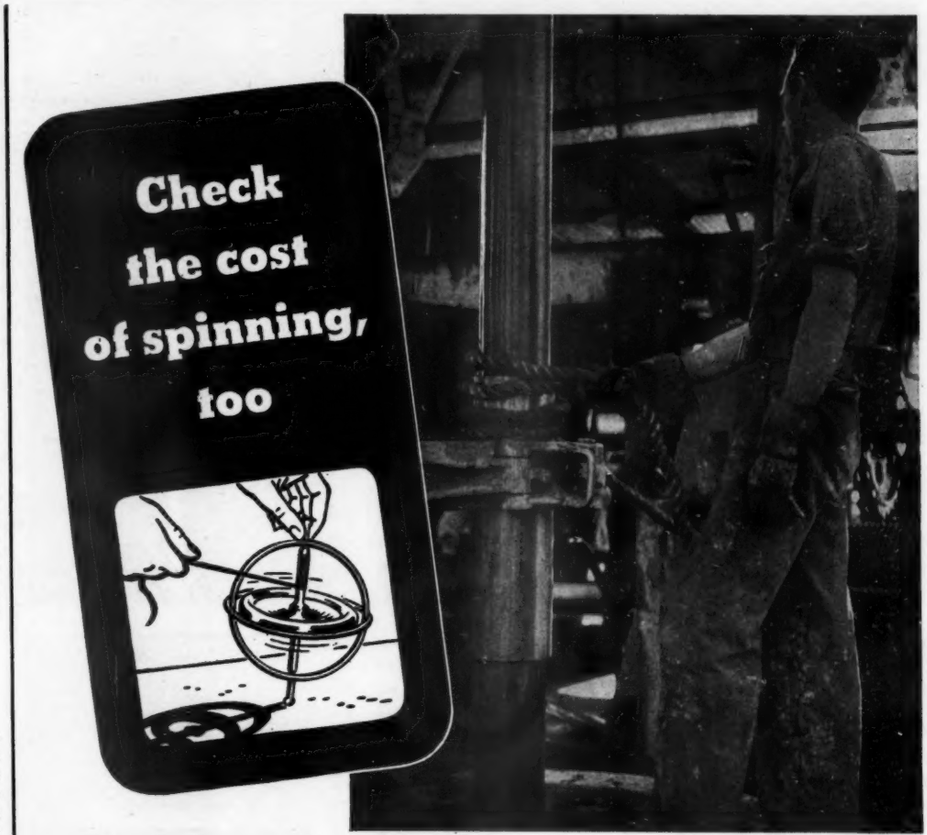
**NEBRASKA DRILLING REPORT**

Furnas County: Trickett 1 Gossic, NW NW NW 33-2-21w, underreaming 12-in. at 1,240 ft.
Gage County: Walt Rider 1 Warren, NE NE 21-3-5e, St. Peter 2,733 ft., pre-Cambrian 2,820 ft., 5-in. 2,770 ft., T.D. 2,858 ft., P.B. 2,630 ft., 5-in. 2,598 ft., at 2,608 ft. H.F.W., set plug 2,350 ft., no shutoff, set plug 2,346 ft., no shutoff, shot 1,990-96 ft., H.F.W., shot 2,310-12 ft. and 2,000-05 ft., increase water, S.D.
Nelson 1 Ideus, W½ E½ SW 5-3-7e, S.D. 605 ft.
Harlan County: Veeder Supply & West 1 Battin, N½ SE NW 15-2n-18w, 10-in. 197 ft., Lansing 3,385 ft., some show oil 3,385-90 ft., show oil 3,540-60 ft., some show oil 3,575-80 ft., conglomerate 3,770 ft., Viola 3,858 ft., Simpson 3,985 ft., Arbuckle 4,046-4,202 ft., T.D., electrical log, S.D.
Keith County: O. O. Petroleum 1 Jensen, NW NW NW 26-14-37w, tight hole, S.D. 1,120 ft.
Nemaha County: Continental Petroleum 1 Gauchat, SW NW NE 26-6n-13e, base Mississippian 1,790 ft., Hunton 2,031 ft., rainbow oil 2,031 ft., 1,900 ft., water in hole 2,060-65 ft., S.D. 2,070 ft.
Richardson County: Eckert-Powers 1 Albin, SW NW SW 10-1-14e, Mississippian lime 2,010 ft., fishing 2,089 ft.
Uhri 1-A Ogle, NW SE SE 9-1-14e, old well, Hunton 2,258 ft., T.D. 2,264 ft., P.B. 2,252 ft., butane and acid, pumped 125 bbl. fluid in 24 hr., cut 30 per cent water.
Valley County: Bredthayer & Taylor 1 Bookwalter, NW SW 29-18n-13w, pre-Cambrian 3,504-35 ft., S.D.

## West Central Texas Fields

*(Continued from Page 63)*

E. Gillespie 1 L. Robinson, 1,700 ft. from W and 1,600 ft. from S lines, Sec. 43, B.A.L. Sur., 700-ft. cable-tool test, S.D. 562 ft.
R. H. Roark 1 Diller Bros., 1,170 ft. from SE and SW lines, Sec. 564, T.E.&L. Sur., 1,000-ft. test, drilling 615 ft.
R. H. Roark 1 Elliott, SW SW SE Sec. 9, L.A.L. Sur., 5,000-ft. test, set. 7-in. casing at 2,850 ft., gas sand 2,850-55 ft., tested 6,650,000 cu. ft., shut in for measurement.
Somervell County: Plymouth Oil 1 Cousins, 456 ft. from SE and NE lines of tract in John Echols Sur., 7,500-ft. test, drilling 3,695 ft.
Stephens County: T. S. Schroeder 1 Corbett, 2,200 ft. from E and 444 ft. from N lines, Sec. 12, Blk. 3, S.P. Sur., drilling 325 ft.
T. G. Shaw 1 S. P. Stroud B, 330 ft. from N and 660 ft. from E lines, SW Green Newton Sur. A-128, 4,250-ft. test, location.
Stonewall County: Hunter, Roberts and Shoults 1 Boyd, 659 ft. from S and 682 ft. from E lines, NW Sec. 28, Blk. D, H.&T.C. Sur., S.D. 4,757 ft., orders.
Shell 1-A Patterson, 1,650 ft. from N and 990 ft. from W lines, Sec. 357, Blk. D, H.&T.C. Sur., Ellenburger test, drilling 1,718 ft.
Taylor County: Ce-Beth Oil 1 City of Abilene, south shore of Lake Abilene on city property, S.D. 4,011 ft.
McQueen & Clevenger 1 W. G. Drummond, 467 ft. from S and 250 ft. from W lines, Sec. 1, T.&N.O. Sur., 2,400-ft. test, drilling 1,512 ft.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PLYMOUTH
THE *Rope* YOU CAN TRUST

# Hiawatha Well Produces Good Yield of Distillate

By T. R. INGRAM

DENVER, Colo., July 21.—Northeastern Colorado is to have another test for oil in the Sterling district in Logan County on state land for which rotary equipment is moving in. Location is in SW SW 32-7n-51w, and will be drilled by the Mutual Oil Co. of Salina, Kans., contract to Pulse Drilling Co.

Vermillion Oil 1 Horrocks, Hiawatha district, which was completed early this year for 12,000,000 cu. ft. as a discovery or extension of East Hiawatha, is producing 40 bbl. of distillate a day following installation of separator and connection of well with the Mountain Fuel Supply trunk line to Utah. The well is pinched in to 1,500,000 cu. ft. a day at present.

Whitlash gas field, Liberty County, Montana, was extended ½ mile to the southwest in Western Natural Gas 1 Herbert, completed for 4,000,000 cu. ft. a day.

Texas-California 6 unit, Wilson Creek, Colorado, was plugged back after testing the Sundance and will be completed in the Morrison, which showed good saturation.

## SUMMARY OF COMPLETIONS

**Colorado**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Dry holes: Fields | 1 | | 5,700 |

**Wyoming**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 4 | 2,356 | 13,583 |

**Montana**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 3 | 513 | 8,683 |
| Dry: Fields | 2 | | 5,555 |
| Gas: Fields | 4 | *5.2 | 5,248 |
| Total | 9 | | 19,486 |

**Utah**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Gas wells: Fields | 1 | *19.2 | 6,016 |

*Million cu. ft.

Mountain Fuel Supply 3-A Musser, Powder Wash, Colorado, which gave promise of an extension of the oil horizon, failed to come up to expectations and was plugged and abandoned.

### COLORADO COMPLETIONS

Powder Wash, Moffat County: Mountain Fuel Supply 3-A Musser, CNL NW SW 5-11n-97w, T.D. 5,700 ft., plugged and abandoned though perforated 7-in. showed for 2 bbl. water and 1 gal. oil per hr.

### COLORADO DRILLING REPORT

El Paso County: F. F. Hintze 1 State, CEL SE SE 16-11s-60w, S.D. 1,990 ft. (correction).

La Plata County: N. Spatter 1-X Bruce, C SW SW 31-33n-9w, T.D. 4,428 ft., tools recovered, cleaning out to resume.

Moffat County: Mountain Fuel Supply 9 Wilson, SE NE 22-12n-100w, location, East Hiawatha, first report.

Mountain Fuel Supply 1 Lasher, NW NE NE 25-12n-101w, West Hiawatha, old gas well preparing to deepen from 2,755 ft. to test sands which yield oil in East Hiawatha.

Privett & Spangler 1 Stillings, NE SE SE 12-5n-96w, drilling 280 ft., sandy shale.

Rio Blanco County: Texas-California 6 unit, NW NE SE 27-3n-94w, T.D. 6,487 ft., plugged back and testing Morrison sand at 6,280-97 ft.

Buford Oil 1 Government, C SW SW 16-1n-91w, drilling 4,459 ft. in anhy. and dolomite.

Texas-California 7 Unit, NE SW SE 34-3n-94w, spudded.

### WYOMING COMPLETIONS

La Barge, Sublette County: Marvel Oil 1-L Govt., SE SE SE 28-27n-113w, pumped 36 bbl. 21-gravity oil per day from sand at 1,130-55 ft., after plugging back from 1,197 ft.

Lance Creek, Niobrara County: Continental 25 Tom Bell, SE SE SE 28-36n-65w, flowed 1,800 bbl. first 24 hr. at 5,354 ft., T.D. from Leo, 7-in. at 5,326 ft.

Oregon Basin, Park County: Texas 5 Sonners, SE NE NE 30-51n-100w, T.D. 3,460 ft., pumped 120 bbl. first 24 hr. after acid. 2,000 gal., 8⅝-in. at 3,228 ft.

Enaipac Oil & Gas 2 McMahon OPC-1, C SW SW 32-51n-100w, T.D. 3,553 ft., pumped 400 bbl. per day from Embar. top 3,225 ft., dry in Tensleep.

### WYOMING DRILLING REPORT

Big Horn County: Ohio 2-A Hoskins, SE SE SE 15-56n-97w, T.D. 5,360 ft., prep. to run 7-in.

Campbell County: Continental-Texas Gulf 1 Knapp, NE SW SE 4-56n-69w, drilling 6,016 ft. in basal Pennsylvanian lime.

Carbon County: Sinclair-Wyoming 5-C Mahoney, C NW SE 34-26n-88w. T.D. 4,566 ft., P.B. to 4,413 ft., testing.

Sinclair-Wyoming 22-A Wertz, CEL SE SE 1-26n-90w, drillinng 5,637 ft.

Sinclair-Wyoming 23-A Wertz, NE NE NE 12-26n-90w, T.D. 5,537 ft., fishing.

Glen Swartout 3 Union Pacific, NE NE SE 21-22n-78w, spudded, first report, west offset to Martin & Gaylord 1 Horne Brothers, gas discovery, in 1939, in Muddy sand for 7,000,000 cu. ft. at 986-1,000 ft.

Ohio 3 H. & C., C SW SE 27-20n-78w, T.D. 3,717 ft., testing.

Sinclair-Wyoming 20 Wertz, NE SW NE 7-26n-89w drilling 6,058 ft. in Tensleep under heavy oil pressure, top of sand 5,860 ft., 7-in. at 5,856 ft.

Sinclair-Wyoming 5-E East Mahoney, C SW SW 20-26n-87w, T.D. 4,319 ft., cmtd. 7-in. 4,302 ft.

Fremont County: Indian Oil 3 Tribal, NW SW NW 23-6n-2w, drilling 693 ft.

Valentine M. Kirk 3 Tribal, NW NW SW 23-6n-2w, drilling 1,082 ft.

Sinclair-Wyoming 3-A unit, NW NW NE 3-33n-92w, T.D. 5,446 ft., running Schlumberger.

Bison Bason Oil 1 Kirk, CEL NW SW 17-27-95w, spudded.

Laramie County: Indian Hills Oil 1 Harding, C NW NW 17-18n-65w, drilling 1,268 ft.

Lincoln County: K. M. P., Inc., 1 State, NE NE NE 36-25¼-115w, T.D. 2,106 ft., running 10-in. for water shutof.

Natrona County: General Petroleum 3-16-S (State) NW SW NW 16-35n-77w, T.D. 4,679 ft., installing pump, top sat. 4,650 ft.

STOODY HARD-FACING METHOD REDUCES WEAR, CUTS TOOL JOINT COSTS!

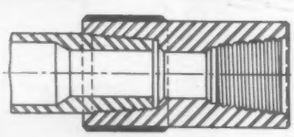
For years Stoody Hard-Facing Alloys have been used on drilling bits to increase their cutting efficiency and insure more out-to-gauge hole. Now you can use Stoody wear-resisting alloys to prolong tool joint life and cut maintenance costs!

Many operators are reporting more than double the normal tool joint life under the toughest kind of drilling conditions. Also, they're able to maintain over-all joint strength and correct elevator contour longer—a vital safety point!

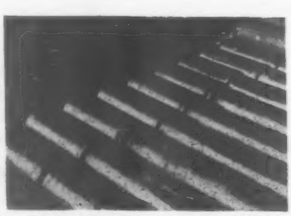
Electric Tube Borium or Coated Stoody Self-Hardening are the alloys used. They're applied either over the regular tool joint surface or inlaid into it—whichever method is preferred. Either way, this new Stoody application will make substantial savings for you in drilling and maintenance costs!

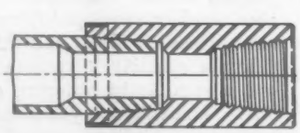
A special Stoody engineering bulletin—describing in detail the methods and metals employed—has been prepared. Write for it. It will give you the full story on how you get more life from your tool joints—at unusually low costs!

How tool joint boxes are hard-faced with Coated Stoody Self-Hardening only, an application widely adopted in Mid-Continent fields. No recess is machined into the joints—the hard-facing is applied directly to the surface of the collar to a thickness of from 1/8" to 3/16".



★Elevator shoulders hard-faced on new boxes, an application which has proved highly successful in California. Joints are undercut ⅛" and heated to about 300° F. before hard-facing with either Electric Tube Borium or Coated Stoody Self-Hardening. Schematic drawing at right illustrates application in detail.





STOODY COMPANY • 1134 West Slauson Avenue • Whittier, California

STOODY COMPANY Hard Facing Alloys

General Pet. 37-21-G, NW SE SW 21-35n-77w, derrick, Cole Creek.
Stanolind 1-SD-3, NE NE SW 26-40n-79w, formerly No. 1-L, coring 2,944 ft., top third Sundance 2,932 ft.
Casper Creek Oil 1 State, SW SW NW 36-36n-81w, T.D. 2,612 ft., preparing to run 6¼-in.
Iba Development 1, C NE SE 25-32n-82w, drilling 1,495 ft., 6⅝-in. at 1,280 ft., second Wall Creek 1,240-63 ft., third Wall Creek 1,280-1,347 ft., top fourth Wall Creek 1,460 ft.
Niobrara County: Ohio 10 A. Rohlff, SW NE 32-36n-65w, drilling 4,000 ft., first Sundance 3,680-3,740 ft.
Ohio 19 Lamb, CSL NW NE 5-35n-65w, drilling 3,944 ft.
Continental 25 Tom Bell, SE SE SE 28-36n-65w, T.D. 5,354 ft., cemented 7-in. at 5,326 ft., 1,000 gal. acid. testing.
Argo 17-B Elliott, SW NE NE 6-35n-65w, T.D. 5,386 ft., 7-in. at 5,377 ft., top second Leo 5,140 ft.
Western Petroleum 1 Mosier, SW SW 31-35n-64w, drilling 665 ft. in shale.
Continental 9-A Schuricht, NW NW SW 5-35n-65w, derrick, first report.
Continental 8-A Dielman, NW NW NW 8-35n-65w, drilling 3,145 ft., 10¾-in. at 286 ft.
Continental 14 O. Rohlff, NW NW SW 32-36n-65w, location, first report.
Lewis Gokel 2, CEL SW SE 2-34n-63w, spudded, first report, Hat Creek district.
Park County: Stanolind 21-X Rosenberg, NE SW NW 25-58n-98w, T.D. 3,037 ft., installing pump.
Enalpac Oil & Gas 1 Purple-O.P.C.( SE SE 31-51n-100w, drilling 2,000 ft.
Husky Refining 2 Morris, SW NE 29-51n-100w, drilling 3,150 ft., cmtd. 13-in. at 114 ft.
Standard 11-X Rosenberg, SE NE NE 26-58n-98w, rigging rotary.
Mackinney Oil & Drilling 1 Northern Pacific, CNL NW NW 5-57n-99w, drilling 773 ft., 12½-in. at 250 ft., first report, South Elk basin.
Sublette County: Texas 1-L Government, SW SW SW 27-27n-113w, T.D. 1,054 ft., testing.
Charles Lackey 1 Government, NE SE SW 33-27n-113w, running 5½-in. to bottom at 1,650 ft.
Klumpe Syndicate 1 State, NE SW NE 28-27n-113w, T.D. 1,792 ft., testinng show gas at 1,512 ft.
Texas 1-A Govt., NW NW NW 34-27n-113w, location, first report.
North La Barge Oil 7 Govt., CSL NE NE 28-27n-113w, drilling 1,180 ft., 7-in. at 1,072 ft. (cor. location).
Sweetwater County: Rocky Mountain Drilling 1 State, SW SW SW 36-20n-104w, S.D. 6,447 ft.
West States Pet. 1 Unit, C SE SE 10-12n-101w, coring in shale at 2,210 ft.
Gus Pongratz 1 Clark, C NW NE 22-14n-104w, drilling 5,800 ft.
Sinclair-Wyoming 101-A, NW NW NW 11-26n-90w, drilling 3,349 ft.
Mountain Fuel Supply 2 Newberger, SW NW NW 18-12n-99w, drilling 3,182 ft.
Sinclair-Wyoming 102 Lost Soldier, SE SE SE 3-26n-90w, location.
Vermillion Oil 1 Government, SW NE NE 6-12n-99w, drilling 1,200 ft.

### MONTANA COMPLETIONS

Bowdoin, Phillips County: Montana-Dakota Utilities 639 Occidental Life, C SW SW 11-32n-34e, T.D. 1,370 ft., P.B. to 1,150 ft., 416,000 cu. ft., open flow, closed in pressure 225 lb.
Montana-Dakota Utilities 640 McDermott, C SE NE 8-32n-34e, T.D. 1,098 ft., 362,000 cu. ft., open flow, Bowdoin sand 820-80 ft., Phillips sand 980-1,080 ft.
Montana-Dakota Utilities 641 Bankers Trust, C SW SE 5-32n-34e, T.D. 1,100 ft., 439,000 cu. ft. open flow, Bowdoin sand 845-925 ft., Phillips sand 1,025-65 ft.
Cut Bank, Glacier County: Glacier Production 1 Walburger unit, SW SW NE 18-33n-4w, T.D. 2,670 ft., P. & A. Cut Bank sand 2,590-2,630 ft., dry.
Santa Rita 14 Tribal, NW NW NW 10-35n-6w, T.D. 2,962 ft., 7-in. 2,897 ft., Cut Bank 2,885-2,960 ft., main pay 2,950-60 ft., swabbed 110 bbl. first 24 hr.
A. R. Pardue 2 Tribal-186, SW NE NE 19-32n-5w, T.D. 2,730 ft., swabbed 310 bbl. first 24 hr., Cut Bank 2,650-2,725 ft., main pay 2,687-2,725 ft.
Kulberg Oil 1 Tribal-203, NE NE NE 24-32n-6w, T.D. 2,991 ft., show oil in Sunburst 2,900-27 ft., Cut Bank 2,931-36 and 2,946-89 ft., main pay 2,975-89 ft., swabbed 93 bbl. first 24 hr.
Texas 2 Jone, C SW SE 6-33n-5w, T.D. 2,885 ft., P. & A., show only in Cut Bank at 2,818-58 ft.
Whitlash, Liberty County: Western Natural Gas 1 Herbert, C NE SW 28-37n-4e, completed in Colorado for est. 4,000,000 cu. ft., T.D. 1,680 ft., est. 1,500,000 cu. ft. in stray sand cased off at 1,495-1,510 ft.

### MONTANA DRILLING REPORT

Big Horn County: Midland Empire Oil 1 Sunray, NW NW SE 34-6s-32e, T.D. 110 ft., rigging heavier equipment.
Carter County: Pete Dickerson 1, SE NE SW 8-9s-61e, T.D. 600 ft., 12½-in. at 300 ft., cleaning out.
Fallon County: Carter 1 Northern Pacific unit, C SE SW 19-4n-62e, T.D. 6,655 ft., cmtd. 9⅝-in. at 6,549 ft.
Garfield County: California Co. 4 Charles, C SE NW 21-15n-30e, drilling 5,700 ft.
Glacier County: Glacier Prod. 7 Miller, CWL SE NE 32-33n-5w, drilling 2,785 ft.
Consolidated Gas 1 Frary-Tribal-208, NE NE SW 19-32n-5w, drilling 1,755 ft., top Colorado 440 ft.
Par Oil 1 Tribal-200, NE NE SE 13-32n-6w, drilling 535 ft.
R. C. Jeffries 1 Tribal-201, NE SE NE 30-32n-5w, drilling 2,450 ft., 8⅝-in. at 2,295 ft.
K. D. Pardee 1 Tribal-198, SW SE NW 13-32n-6w, running 7-in. at 2,957 ft.
Texas 1 Government, C NW SW 8-32n-5w, drilling 2,845 ft.
Pioneer Lumber 1 Anderson, NW NE NW 31-32n-5w, drilling 2,710 ft.
Ralph N. Davis 1 Tribal-209, NE NE NE 25-32n-6w, running 7-in. at 2,968 ft.
Hannah-Porter 3 Tribal-189, SW SE SE 19-32n-5w, drilling 625 ft., top Colorado 480 ft., 10¾-in. 503 ft.
Glacier Prod. 7 Bonnet, CSL SE NW 4-32n-5w, spudded.
Santa Rita 2 Jacobson, NW SE NW 23-37n-5w, rigging, first report, North Cut Bank.
Santa Rita 2-A Govt., C SE NW 31-33n-5w, rigging first report.
Hill County: A. B. Cobb 1 Govt., SE SE NE 19-27n-15e, T.D. 4,341 ft., recmtd. 65 ft. 5½-in. liner with packer at 4,013 ft.
Edwards & Callison 1 Hansen, SW SE NW 25-33n-15e, drillinng 1,300 ft. (cor.).
Liberty County: Montana-Dakota Utilities 1 Oswood C NE SW 18-35n-4e, drilling 2,200 ft., show gas at 1,937-71 ft.
Western Natural Gas 1 Herbert, 28-37n-4e, cemented 7-in. at 1,643 ft.
Park County: Security Pet. 1 Weeis, SE SE SW 20-2s-11e, drilling 146 ft. in sand.
Intermountain States Oil 1 Burgess, SE SW NW 28-2s-11e, reaming at 1,153 ft. to set 12½-in.
Phillips County: Montana-Dakota Utilities 664 Keystone Land, C SW SW 22-33n-33e, set 8⅝-in. at 100 ft. and shut down, first report, Bowdoin field.
Montana-Dakota Utilities 662 Bell, C Lot 3, 4-31n-34e, set 8¼-in. at 128 ft. First report.
Montana-Dakota Utilities 661 Phoenix Mutual, spudded, first report.
Montana-Dakota Utilities 654 Siewing, C NW SE 12-32n-32e, spudded, first report.
Montana-Dakota Utilities 655 Sudbrack, C NE SE 28-32n-34e, set 8⅝-in. casing at 101 ft., first report.
Montana-Dakota Utilities 653 Occidental Life, C Lot 3, 2-32n-33e, set 8⅝-in. at 102 ft.
Toole County: Huso Brothers 2 Ellingson, C SE SE 14-35n-3w, drilling into water at 1,806 ft., P.B. to 1,780 ft. and swabbing to test.
Superior Pet. 1-A Govt., SE SE NW 24-35n-3w, drilling 540 ft.
Silver Oils, Ltd., 4 Haskins, SE NE NE 25-36n-2w, T.D. 1,529 ft., set 8¼-in. on bottom.
Lund & Engleking 1 State, NE NE NE 34-35n-4w, T.D. 2,066 ft., break at 2,058-60 ft., acidized 500 gal., no results, will acidize again.
Dakota-Montana Oil 20-A Govt., NE SW SW 31-35n-1w, drilling 950 ft.
Big West 7 Ellingson, CEL SE SW 14-35n-3w, T.D. 1,765 ft., Contact 1,740-46 ft., dry.
J. H. Agen 17 Goeddertz, SE SE NW 23-35n-3w, drilling 1,150 ft., 8¼-in. at 995 ft.
Bosworth & Shubat 1 Lukenbill, C SW NE 11-36n-2w, drilling 1,585 ft., 8¼-in. at 1,291 ft.
Montana-Dakota Utilities 323 Johnson, NW NW NW 35-34n-1w, drilling 1,143 ft.
M. F. Toles 12 Norum, SW SE SW 33-35n-2w, T.D. 1,445 ft., running 7-in. gas flow at 633-40 ft.
Ramona Oil 5 Govt., CSL NE NW 12-35n-3w, drilling 980 ft., first report.
R. G. Parrant 1 McAlpine, SW NW SE 25-37n-3w, spudded, first report, West Kevin.
Newpstad Oil 2 Hugi, NE SE NW 11-35n-3w, T.D. 1,808 ft., show in contact at 1,802-08 ft., will drill deeper.
Mills Oil 3 Govt., CSL NE SE 8-35n-2w, T.D. 1,661 ft., contact 1,654-59 ft., two bailers oil, acidized 1,500 gal.
Imperial-Craig 5 Martin, C SW SW 18-35n-1w, spudded, first report.
Hat Oil 1 Mitchell, C NE SW 24-37n-3w, spudded, first report.

### UTAH COMPLETIONS

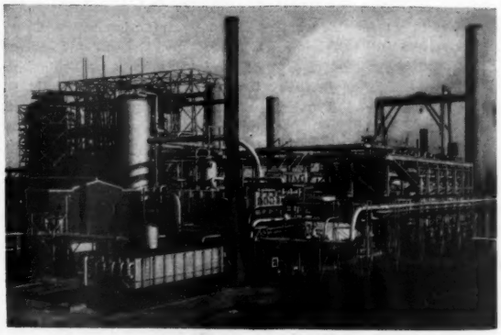
Clay Basin, Daggett County: Mountain Fuel Supply 1 Sparks, SW SW SE 23-3n-24e, T.D. 6,016 ft., 19,234,000 cu. ft. in 24 hr. from Dakota through perforated 4¾-in. at 5,896-5,980 ft.

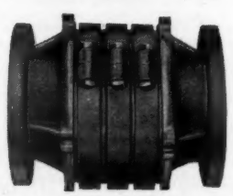

BADGER
Expansion Joints

**Stainless Steel**
where temperatures range up to 900°F. or where pressures range to 300 lbs.

**Special Copper**
where temperatures range up to 500°F. or where pressures do not exceed 200 lbs.

**The Packless, Maintenance-Free Expansion Joints for Oil Refineries**





The above are the Badger Directed Flexing, Self-Equalizing Expansion Joints made in a wide range of sizes and traverses.

In addition to these, we have stainless steel and copper Non-Equalizing Expansion Joints for the low pressure, short traverse pipe expansion problems as well as for serving as a connecting member between adjacent equipment such as turbine and condenser.

In short, headquarters for "packless" expansion joints is

**E. B. BADGER & SONS CO.**

75 Pitts St., Boston, Mass.
*Agents in Principal Cities*

# Kingwood County Discovery Completed for 1,000 Bbl.

By STAFF CORRESPONDENT

MATTOON, Ill., July 21.—Illinois operations reached a new peak well above the 400 mark last week as the biggest spurt in drilling activity in southern Illinois so far this year was recorded. The sudden spurt in activity was credited to several excellent discovery wells recently completed in the basin area and to the newly enacted oil conservation law which is expected to place certain limitations on well spacing.

Fourteen of the new tests announced last week were in Wayne County, where a 2,400-bbl. discovery well was completed while Jefferson County, scene of another discovery, had eight first reports.

### Kingwood Test Makes Excellent Producer

Kingwood Oil Co. last week opened a Jefferson County pool with the completion of the largest producer yet obtained in the county. Put on pump the discovery well produced 500 bbl. of oil in the first 11 hours, more than double its previous flowing capacity.

The producer is 1 First National Bank of Woodlawn, SE SE SW 35-2s-1e, semiwildcat ¾ mile south of production in the Woodlawn field. The well originally flowed 448 bbl. in 24 hours following a 20-qt. shot in the Benoist sand at 1,963-81 ft. Company estimates place eventual daily production as high as 900 bbl.

Kingwood's discovery is of double importance since it is producing from the long-lived Benoist sand, a formation which has yielded oil in some areas in Illinois for more than 30 years. It is reported to be the largest producer ever completed in Jefferson County and is one of the best sand producers yet drilled in the state.

Ten new tests have already been started near the discovery well and three of these were nearing the pay sand at the end of the week. These included Eddie Self 1 Zinke, SW 35-2s-1e, drilling at 1,856 ft.; Gulf 1 Eubanks, NE SE SW 35-2s-1e, drilling at 1,840 ft.; and Magnolia 1 Shirley, NW NW SE 35-2s-1e, drilling at 1,705 ft. None of the other tests in the area are yet down to the 1,000-ft. level.

The opening of Jefferson County's newest pool has not only started a drilling boom but has started a gradual flow of oil operators into the city of Mount Vernon, county capital. Eight different oil firms and several drilling companies and legal firms have already opened offices in the city. In addition, numerous representatives of various oil firms, supply houses and service establishments also make the city their headquarters.

### Saline County May Have First Oil Production

Testing of Saline County's first well continued over the week end with every indication pointing toward a successful completion of the well. The well is Thompson Drilling Co. 1 Reich, NE SW NE 8-8s-7e, swabbing from the McClosky lime at 2,962-2,971 ft. following an acid treatment of 1,000 gal. Latest reports from the well stated that it was swabbing 138 bbl. in 12 hours.

An electrical log also showed saturation in the Cypress sand at 2,572-2,607 ft., which was considered commercial.

Another well in the county which indicated several weeks ago that it might make a producer, Potter 1 Sutton, SE SE SW 28-8s-7e, 2½ miles southeast of 1 Reich, was still waiting on cement with casing set on top of the Palestine at a total depth of 1,956 ft.

### Carter to Test St. Peter In Fayette County

Rumors that the Carter Oil Co. would explore potential producing formations below the Devonian in the Louden pool of Fayette County were confirmed last week with the filing of an instrument in which the company was given permission to make a test to an unlimited depth on the Jennie Bauer farm without obligation to produce commercially below the Devonian.

The test will be made in Section 21, an area where several Devonian tests are now under way, and will be carried to the St. Peter sand which has been roughly correlated with the Wilcox sand which produces prolifically in the Oklahoma fields. The St. Peter sand is approximately 6,000 ft. in the Louden field and will give the Carter Co. an opportunity to test the Trenton lime, from which fair production has been obtained in the Salem field of Marion County.

### Drilling Boom Under Way In Wayne County

A drilling boom is under way in the west central part of Wayne County, following the completion of a wildcat 5 miles west of nearest production in the Clsne pool. This boom was started by the completion of Wiser 1 Hillard, S½ SE SW 27-1n-6e, as a 2,400-bbl. well in the McClosky lime. Following the completion of this well derricks jumped up throughout the area around the well and more than 15 wells are already drilling in the field with several of these expected to be in the McClosky by the end of this week.

In addition to the great interest in this area, Wayne County has wildcat operations under way in eight other townships, although dry holes have slowed down developments in some of these areas.

## SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Benton | 10 | 3,227 | 21,470 |
| Dale | 5 | 1,408 | 15,114 |
| East Calvin | 4 | 461 | 11,428 |
| Inman | 4 | 615 | 7,051 |
| Louden | 6 | 621 | 10,938 |
| North New Harmony | 10 | 1,168 | 27,458 |
| Rising Sun | 3 | 875 | 8,011 |
| West Liberty | 3 | 2,065 | 8,525 |
| Other pools | 24 | 2,246 | 56,930 |
| Wildcats | 2 | 2,481 | 5,423 |
| Dry holes: Fields | 11 | ..... | 27,438 |
| Wildcats | 16 | ..... | 40,341 |
| Total | 98 | ..... | 240,127 |
| Gas input wells | 1 | ..... | 1,534 |
| Recompletions | 5 | 793 | ..... |

Louden 1, Inman 1, Dahlgren 1, West Liberty 1, Dix 1, South Noble 1, Dundas 1, Enterprise 1, Calvin 2, South Herald 1.

## WILDCAT COMPLETIONS

Bond County: Texas 1 Mull, NW SW NW 15-6n-2w, dry at 2,476 ft., Weiler 890 ft., Benoist 1,016 ft., Aux Vases 1,063 ft., Ste. Genevieve 1,096 ft., Fredonia 1,120 ft., Louisiana 2,180 ft., Chattanooga 2,202 ft., Hardin 2,301 ft.

Clinton County: Roland et al 1 Deters, NE SW NE 11-2n-3w, location abandoned.

J. R. Kerwin et al 1 Glaser, E½ SW SE SW 2-1n-3w, dry at 1,340 ft., Cypress 1,204 ft., Cypress sand 1,229 ft., Paint Creek 1,260 ft., Benoist 1,334 ft.

Fayette County: Smokey 1 Boye, SW SW NW 23-5n-2e, dry at 2,200 ft., Menard 1,462 ft., Tar Springs 1,560 ft., Glen Dean 1,660 ft., Golconda 1,787 ft., Cypress 1,821 ft., Cypress sand 1,840 ft., Benoist 1,983 ft., Renault 2,030 ft., Aux Vases 2,065 ft., Ste. Genevieve 2,100 ft., Rosiclaire 2,120 ft., McClosky 2,-140 ft.

Gallatin County: Vanderbark 1 Browning, NW NW SE 10-8s-10e, dry at 2,841 ft., Aux Vases 2,626 ft., Ste. Genevieve 2,656 ft., Rosiclaire 2,682 ft., Fredonia 2,692 ft.

Buell & Herndon 1 Cox, SE NW SW 2-8s-9e, location abandoned.

Hamilton County: Ohio 1 First Nat. Bank of Enfield, SE SE NW 3-5s-7e, dry at 3,587 ft.

Macoupin County: Adams & Laegers 1 Bristow, SW SW SW NW 8-11n-7w, dry at 1,435 ft.

Marion County: Texas 1 McClelland, S½ SW NE 18-2n-2e, dry at 3,600 ft., Tar Springs 1,555 ft., Glen Dean 1,624 ft., Cypress sand 1,788 ft., Paint Creek 1,890 ft., Benoist 1,930 ft., Renault 1,975 ft., Aux Vases 2,005 ft., Ste. Genevieve 2,079 ft., McClosky 2,134 ft.

Perry County: Ruwaldt 1 Fulk, NE NE SW 15-4s-4w, dry at 1,450 ft., Menard 780 ft., Glen Dean 930 ft., Golconda 1,012 ft., Cypress sand 1,072 ft., Paint Creek 1,252 ft., Benoist 1,312 ft., Renault 1,380 ft., Aux Vases 1,433 ft.

Kingwood 1 Marlow, SW NW SW 15-5s-2w, Tar Springs 829 ft., Glen Dean 928 ft., Golconda 1,003 ft., Barlow 1,115 ft., Cypress sand 1,172 ft., Paint Creek 1,257 ft., Benoist 1,337 ft., Renault 1,383 ft., Aux Vases 1,387 ft., Rosiclaire 1,452 ft., Fredonia 1,533 ft., McClosky 1,548 ft.

St. Clair County: Alspach 1 Russel Smith, SW SW SW SE 31-3s-6w, dry at 1,715 ft., base Pennsylvanian 135 ft., Glen Dean 230 ft., Cypress sand 438 ft., Renault 539 ft., Ste. Genevieve 715 ft., St. Louis 796 ft., Devonian 1,680 ft.

Shelby County: National Pet. 1 Montooth, SE SE SE 2-9n-2e, dry at 2,043 ft., Menard 1,328 ft., Glen Dean 1,503 ft., Barlow 1,620 ft., Cypress 1,649 ft., Cypress sand 1,671 ft., Benoist 1,879 ft., Aux Vases 1,893 ft., St. Genevieve 1,920 ft., Rosiclare 1,931 ft., Fredonia 1,976 ft., St. Louis 2,030 ft.

Wabash County: E. O. Olds 1 Parkinson, NW NW SW NE 29-1s-12w, pumped 75 bbl., 30-qt. shot 2,000-10 ft., Cypress sand 2,002-14 ft., T.D. 2,338 ft., P.B. 2,014 ft. *Extension well Mount Carmel pool.*

Wayne County: Crosby 1 Murphy, E½ SW NE 15-3s-5e, dry at 3,432 ft., Menard 2,395 ft., Glen Dean 2,639 ft., Cypress 2,880 ft., Ste. Genevieve 3,194 ft., McClosky 3,306 ft., St. Louis 3,428 ft.

Pure 1 Liston-A, W½ NE NE 22-1s-8e, dry at 3,200 ft., Cypress 2,762 ft., Renault 3,010 ft., Aux Vases 3,047 ft., Ste. Genevieve 3,103 ft., Rosiclare 3,120 ft., Fredonia 3,148 ft., McClosky 3,157 ft.

Wiser 1 Hillard, S½ SE SW 27-1n-6e, flowed 2,400 bbl., natural, perf. 3,021-24 ft., 2,992-96 ft., McClosky 2,992-96 ft., 3,004-12 ft., 3,021-24 ft., T.D. 3,085 ft. *Pool opener.*

White County: Skelly 1 Reinwald et al, NW NW NW 25-4s-9e, dry at 3,360 ft., Menard 2,412 ft., Tar Springs 2,568 ft., Glen Dean 2,617 ft., Hardinsburg 2,702 ft., Golconda 2,753 ft., Barlow 2,867 ft., Cypress sand 2,889 ft., Paint Creek 2,954 ft., Benoist 2,972 ft., Renault 3,107 ft., Aux Vases 3,157 ft., Aux Vases sand 3,170 ft., Ste. Genevieve 3,207 ft., McClosky 3,249 ft.

Millison Bros. 1 M. P. Chandler, NW NW SW 30-5s-14w, dry at 3,111 ft.

Williamson County: Arrow Drlg. 1 Fuller, NW SW SE 31-8s-4e, dry at 2,944 ft., Kincaid 1,475 ft., Palestine 1,683 ft., Menard 1,852 ft., Vienna 2,011 ft., Tar Springs 2,040 ft., Glen Dean 2,090 ft., Barlow 2,376 ft., Cypress sand 2,386 ft., Paint Creek 2,497 ft., Benoist 2,633 ft., Renault 2,646 ft.

## FIELD COMPLETIONS

### Clay County

Clay City: Pure 13 Smith-B, SE NE SW 7-2n-8e, pumped 5 bbl. oil and 13 bbl. water, natural, Cypress sand 2,659 ft., T.D. 2,663 ft.

Pure 4 R. H. Pierce, E½ NE SW 15-2n-8e, pumped 269 bbl., 5,000 gal. acid, Fredonia 3,029 ft., pay 3,035-42 ft., T.D. 3,065 ft.

Iola: Texas 1 A. P. Cox, SW SW NW 16-5n-5e, pumped 25 bbl. oil and 25 bbl. water, 10-qt. shot 2,376-86 ft., Aux Vases 2,364 ft., T.D. 2,389½ ft.

### Fayette County

Louden: C. S. Truitt 1 Buzzard, S½ SE SE NE 34-9n-3e, dry at 1,625 ft., Glen Dean 1,394 ft., Cypress 1,526 ft., Cypress sand 1,558 ft.

Carter 7 E. Durbin, S½ SE NW NE 4-7n-3e, pumped 82 bbl. oil and 15 bbl. water, 40-qt. shot 1,501-16 ft., 15-qt. shot 1,569-74 ft., Cypress sand 1,487-1,520 ft., Paint Creek 1,569-77 ft., T.D. 1,579 ft.

Carter 3 Miller, NE SW SE 4-7n-3e, pumped 30 bbl., 30-qt. shot 1,536-46 ft., Cypress sand 1,523 ft., T.D. 1,556 ft.

Carter 14 Griffith, NW NW NE 31-7n-3e, swabbed 138 bbl., 60-qt. shot 1,529-55 ft., Cypress sand 1,520 ft., T.D. 1,572 ft.

Carter 2 Buzzard, NW NE NE 3-8n-3e, swabbed 48 bbl. oil and 24 bbl. water, 20-qt. shot 1,514-22 ft., Cypress sand 1,510 ft., T.D. 1,538 ft.

Carter 2 R. Doty, NW NE NE 12-8n-3e, swabbed 48 bbl. oil and 2 bbl. water, 20-qt. shot 1,476-81 ft., Cypress sand 1,476-84 ft., T.D. 1,485 ft.

Oil, Inc. 2-D Wood, W½ SE SE 16-8n-3e, flowed 275 bbl. oil and 50 bbl. water through ¼-in. choke, perf. 3,199-3,203 ft., 500 gal. acid, Devonian 3,087 ft., T.D. 3,208 ft.

Carter 23-6 Brooks, NW NW NW SE 23-8n-3e, gas input well, perf. 1,491-99 ft., 1,503-21 ft., Glen Dean 1,324 ft., Cypress 1,458 ft., Cypress sand 1,486 ft., T.D. 1,534 ft., P.B. 1,525 ft.

St. James: Sherman et al 2 Owens, NW SW NE 31-6n-3e, pumped 38 bbl. oil and 2 bbl. water, 3-qt. shot on bottom, Cypress 1,625 ft., T.D. 1,633 ft.

### Franklin County

Benton: Nation 1 Kelly, NE SW NE 23-6s-2e, pumped 120 bbl., 14-qt. shot 2,122-30 ft., Tar Springs sand 2,107-30 ft., T.D. 2,130 ft.

Johnson 1 Miller, W½ NW NW NW 25-6s-2e, pumped 205 bbl., 20-qt. shot 2,090-2,105 ft., Tar Springs sand 2,083 ft., T.D. 2,110 ft.

Menhall 4 Moore, NW SW NW 25-6s-2e, pumped 304 bbl., 20-qt. shot 2,136-52 ft., Tar Springs 2,120 ft., T.D. 2,152 ft.

Menhall 5 Moore, SW SW SW NW 25-6s-2e, pumped 296 bbl., 20-qt. shot 2,132-43 ft., Tar Springs 2,128 ft., T.D. 2,146 ft.

Menhall 6 Moore, N½ NE NW SW 25-6s-2e, pumped 298 bbl., 30-qt. shot 2,152-64 ft., Tar Springs 2,138 ft., T.D. 2,167 ft.

Unger 1 Dye, SE SE NE 25-6s-2e, pumped 130 bbl., 40-qt. shot 2,130-48 ft., Tar Springs 2,115 ft., T.D. 2,150 ft.

Wegener 4 C. W. & F. "S-M," NW SW SW 25-6s-2e, pumped 410 bbl., 60-qt. shot 2,131-64 ft., Tar Springs 2,115 ft., T.D. 2,165 ft.

Mosebach 1 Loger, NE NE NE 35-6s-2e, pumped 384 bbl., 40-qt. shot 2,114-41 ft., Tar Springs 2,109 ft., T.D. 2,147 ft.

Adkins 5 C. W. & F. "W," N½ NE NE SW 36-6s-2e, pumped 494 bbl., 40-qt. shot 2,118-32 ft., Tar Springs 2,075 ft., T.D. 2,132 ft.

Shell 11 C. W. & F. "R-S," S½ NW NW NW 36-6s-2e, pumped 586 bbl., 30-qt. shot 2,137-65 ft., Tar Springs sand 2,107-71 ft., T.D. 2,171 ft.

### Gallatin County

Inman: Halbert 5 Curry, SE SW NW 15-8s-10e, pumped 208 bbl., 40-qt. shot 2,057-80 ft., Tar Springs 2,049 ft., T.D. 2,080 ft.

Halbert 7 Curry, SE NW NW 15-8s-10e, pumped 235 bbl. in 21 hr., 20-qt. shot 2,071-81 ft., Tar Springs 2,063 ft., T.D. 2,081 ft.

Halbert et al 9 Curry, NW NW NW 15-8s-10e, pumped 12 bbl. oil and 55 bbl. water, 8-qt. shot 789-94 ft., saturated sand 786 ft., T.D. 795 ft.

Leach & Fubrer 6 Egyptian T. & T., SE NE SE 16-8s-10e, pumped 160 bbl., 30-qt. shot 2,085-95 ft.,

Tar Springs 2,068 ft., T.D. 2,095 ft.
Buell & Herndon 4 Egyptian T. & T., NW SE NW SE 16-8s-10e, dry at 856 ft., sand 835 ft., H.F.W.

**Hamilton County**

Dahlgren: Sinclair 2 Brumley, NW SE NW 34-3s-5e, pumped 75 bbl., 3,000 gal. acid, McClosky 3,313 ft., T.D. 3,327 ft.
Sinclair 3 E. Gage, SW SW NE 34-3s-5e, pumped 40 bbl., 3,000 gal. acid, McClosky 3,339 ft., T.D. 3,349 ft.
Sinclair 1 Zellars, SW SW SW 26-3s-5e, dry at 3,343 ft., Menard 2,398 ft., Waltersburg 2,458 ft., Glen Dean 2,622 ft., Hardinsburg 2,677 ft., Golconda 2,744 ft., Barlow 2,862 ft., Cypress 2,870 ft., Renault 3,120 ft., Ste. Genevieve 3,222 ft., McClosky 3,-338 ft.
Dale: Pure 1 Mayberry, NE SW SE 7-6s-7e, pumped 83 bbl. oil and 3 bbl. water, 130-qt. shot 3,013-33 ft., perf. 2,879-2,912 ft., Aux Vases sand 3,000-30 ft., 2,980-93 ft., T.D. 3,035 ft.
Shell 1 Ritcheson, NW SW SE 7-6s-7e, pumped 42 bbl. oil and 22 bbl. water, Cypress sand 2,658-74 ft., pay 2,710-20 ft., T.D. 3,120 ft., P.B. 2,720 ft.
Texas 6 M. Davis, SE NW NE 7-6s-7e, flowed 696 bbl., 25-qt. shot 2,965-80 ft., Aux Vases 2,950-58 ft., T.D. 2,980 ft.
Texas 4 M. Davis, NE SE NW 7-6s-7e, flowed 208 bbl., 15-qt. shot 2,971-86 ft., Aux Vases 2,956 ft., T.D. 2,989 ft., P.B. 2,710 ft., drilled out to 2,987 ft.
Shell 2 Ritcheson, SW SW NE 7-6s-7e, swabbed and flowed 379 bbl., 10-qt. shot 2,980-87 ft., Aux Vases sand 2,966-90 ft., T.D. 2,990 ft.
Cameron 1 Mayberry, NW SW SE 7-6s-7e, flowed 500 bbl., 20-qt. shot 3,012-24 ft., old well deepened from 3,010-3,024 ft.

**Jasper County**

West Liberty: Pure 1 Brothers, E½ SW NW 16-5n-10e, Dry at 2,825 ft., Glen Dean 2,261 ft., Barlow 2,408 ft., Cypress 2,427 ft., Weiler 2,546 ft., Ste. Genevieve 2,742 ft., Rosiclare 2,752 ft., Fredonia 2,-765 ft.
Pure 6 R. Schinn, E½ NW NE 8-5n-10e, flowed 370 bbl., 5,000 gal. acid, McClosky 2,788-91 ft., 2,807-10 ft., 2,813-20 ft., T.D. 2,830 ft.
Pure 2 Fehrenbacher, W½ SW SW 8-5n-10e, flowed 772 bbl., 5,000 gal. acid, McClosky 2,805-10 ft., T.D. 2,835 ft.
Pure 1 R. Parnell, E½ SE NE 18-5n-10e, flowed 923 ft., 5,000 gal. acid, Fredonia 2,820 ft., pay 2,824-28 ft. and 2,840-42 ft., T.D. 2,860 ft.

**Jefferson County**

Dix: Pearson 3 Carpenter, SW NE SW 10-1s-2e, pumped 50 bbl. oil and 20 bbl. water, natural, Benoist 1,961 ft., T.D. 1,968 ft.
Rabus 1 Leber, NE NW NW 16-1s-2e, dry at 2,256 ft., base Pennsylvanian 1,981 ft., Menard 1,415 ft., Tar Springs 1,529 ft., Glen Dean 1,619 ft., Golconda 1,710 ft., Barlow 1,811 ft., Cypress 1,829 ft., Benoist 1,978 ft., Renault 2,029 ft., Aux Vases 2,046 ft., Ste. Genevieve 2,118 ft., Rosiclare 2,136 ft., Fredonia 2,191 ft.

**Marion County**

East Patoka: Highland 2 Thalman estate, SE NW NW 35-4n-1e, T.D. 1,367 ft.
Shell 5 Hedley, NW NW NE 34-4n-1e, pumped 35 bbl., 3-qt. shot 1,362-64 ft., Cypress sand 1,355-59 ft., 1,360-64 ft., T.D. 1,364 ft.
Shell 4 Clark-A SE NE SE 34-4n-1e, pumped 65 bbl. oil and 2 bbl. water, 3-qt. shot 1,364-66 ft., Cypress sand 1,357 ft., T.D. 1,367 ft.
Salem: Magnolia 32 Young, SE SW NE 20-2n-2e, flowed 85 bbl., natural, Trenton 4,500 ft., old well deepened to 4,622 ft.
Magnolia 81 J. H. Young, NW NW NW 28-2n-2e, flowed 49 bbl., natural, Trenton 4,533 ft., old well deepened to 4,660 ft.
Texas 15 Richardson, NW SW NW 32-2n-2e, flowed 35 bbl., Trenton 4,454 ft., old well deepened to 4,570 ft.
Texas 28 K. Wayman, SW NW NW 32-2n-2e, flowed 124 bbl., Trenton 4,458 ft., old well deepened to 4,570 ft.

**Richland County**

South Noble: Delta Prod. 1 Bell, N½ SE NE 28-3n-9e, dry at 3,123 ft., Glen Dean 2,458 ft., Golconda 2,520 ft., Barlow 2,636 ft., Cypress 2,645 ft., Cypress sand 2,727 ft., Ste. Genevieve 2,990 ft., Rosiclare 3,010 ft., Fredonia 3,3033 ft., McClosky 3,040 ft.
Dundas: Pure 1 Street Consol., W½ NE NE 13-4n-9e, dry at 2,978 ft., Glen Dean 2,378 ft., Barlow 2,533 ft., Ste. Genevieve 2,892 ft.

**Wabash County**

Allendale: Kneipp & Baulingman 1 Price, N½ NE NE NW 14-1n-12w, pumped 40 bbl. oil and 40 bbl. water, Waltersburg 1,546-59 ft., T.D. 1,640 ft.
Mount Carmel: J. P. Less 1 McGregor, E½ NW SE NE 20-1s-12w, pumped 150 bbl., 30-qt. shot 2,038-54 ft., Cypress sand 2,035-54 ft., T.D. 2,054 ft.
Aspin 1 Olendorf, SE NE NW SW 21-1s-12w, pumped 60 bbl. oil and 10 bbl. water, 30-qt. shot 2,007-18 ft., Cypress sand 2,006-18 ft., T.D. 2,018 ft.
E. O. Olds 1 Trimble, NW SW NW 21-1s-12w, pumped 60 bbl., 30-qt. shot 2,055-66 ft., Cypress sand 2,052-66 ft., T.D. 2,066 ft.

**Wayne County**

West Enterprise: Pure 1 Reid, W½ NE SE 36-2n-7e, pumped 106 bbl. oil and 110 bbl. water, 5,000 gal. acid, McClosky 3,004-08 ft., 3,014-20 ft., T.D. 3,-030 ft.
Pure 1 Perry-A, 12-1n-7e, pumped 106 bbl. oil and 3 bbl. water, 5,000 gal. acid, McClosky 3,035-40 ft., 3,044-51 ft., T.D. 3,060 ft.
Enterprise: Pure 4-A C. Bates, W½ SE NE 8-1n-8e, dry at 3,103 ft., Glen Dean 2,492 ft., Hardinsburg 2,508 ft., Barlow 2,655 ft., Cypress sand 2,670 ft., Aux Vases 2,957 ft., Ste. Genevieve 2,995 ft., Rosiclare 3,012 ft., Fredonia 3,035 ft., McClosky 3,040-50 ft., 3,053-55 ft.
North Enterprise: J. W. Sanders 4 Hubble, SW NW SE 30-2n-8e, pumped 15 bbl. oil and 3 bbl. water, pumped off, 5,000 gal. acid, McClosky 3,029-43 ft., T.D. 3,053 ft.

**White County**

Rising Sun: Magnolia 2 Sisson-Higgins, SW NW SE 24-6s-10e, pumped 505 bbl., natural, Tar Springs 2,252 ft., T.D. 2,259 ft.
Cherry & Kidd 3 Karch, SE NE SW 24-6s-10e, pumped 170 bbl., 10-qt. shot 2,031-39 ft., Palestine 2,030-45 ft., T.D. 2,887 ft., P.B. 2,039 ft.
Cherry & Kidd et al 2 Karch, NE SE NW 24-6s-10e pumped 200 bbl., 60-qt. shot 2,842-61 ft., Aux Vases 2,840 ft., T.D. 2,865 ft.
North New Harmony: Superior 10 Ford "D," NW SE NW 34-4s-14w, pumped 75 bbl., 1,000 gal. acid, McClosky 2,882-89 ft., T.D. 2,915 ft.
Tide Water 25 Dennis, NW SW NE NE 33-4s-14w, pumped 70 bbl. oil and 15 bbl. water, 60-qt. shot 2,707-32 ft., Benoist 2,691-2,711 ft., T.D. 2,735 ft.
Tide Water 24 Dennis, SE NW NW NE 33-4s-14w, pumped 40 bbl. from Waltersburg and Aux Vases, 60-qt. shot 2,821-43 ft., 250-qt. shot 2,820-43 ft., Waltersburg sand 2,121-42 ft., Aux Vases 2,821-41 ft., T.D. 2,841 ft.
Tide Water 20 Dennis, NE SE NE 33-4s-14w, pumped 133 bbl., 40-qt. shot 2,563-83 ft., 60-qt. shot 2,816-41 ft., 40-qt. shot 2,563-83 ft., Cypress sand 2,548-98 ft., Aux Vases 2,807-30 ft., T.D. 2,841 ft.
Superior 15 Fitten "A," SW NW NW 33-4s-14w, pumped 125 bbl. in 20 hr., 100-qt. shot 2,835-55 ft., 275-qt. shot 2,830-50 ft., perf. 2,696-2,730 ft., 2,571-2,604 ft., T.D. 2,855 ft.
Superior 19 H. M. Ford, N½ NE SW 28-4s-14w, pumped 120 bbl., 2 per cent water, 160-qt. shot 2,690-2,725 ft., 400-qt. shot 2,692-2,720 ft., Benoist 2,684-2,725 ft., T.D. 2,725 ft.
Superior 11 Fitten, NW NE NW 28-4s-14w, pumped 250 bbl., 120-qt. shot 2,834-60 ft., 230-qt. shot 2,830-60 ft., perf. 2,692-2,720 ft., 2,588-2,605 ft., Aux Vases 2,830-52 ft., Cypress sand 2,591-2,630 ft., T.D. 2,860 ft.
Sun & Ellis 8 Jacobs "A," S½ S½ NE 28-4s-14w, pumped 100 bbl. oil and 100 bbl. water, 70-qt. shot 2,123-43 ft., Waltersburg sand 2,123 ft., T.D. 2,-143 ft.
Sinclair 3 Donald, NE NW NW 28-4s-14w, pumped 215 bbl., 100-qt. shot 2,846-56 ft., 200-qt. shot 2,846-56 ft., perf. 2,710-20 ft., 2,590-98 ft., T.D. 2,598 ft.
Superior 14 Ford "C," SE SW SW 27-4s-14w, pumped 40 bbl., 5 per cent water, 1,000 gal. acid, McClosky 2,883-85 ft., 2,906-08 ft., 2,949-54 ft., T.D. 2,954 ft.
East Calvin: Sinclair 4 Donald, SW NE SW 21-4s-14w, pumped 219 bbl., 100-qt. shot 2,850-60 ft., perf. 2,600-08 ft., 60-qt. shot 2,700-10 ft., Cypress sand 2,596-2,810 ft., Benoist 2,702-11 ft., T.D. 2,865 ft.
Sinclair 2 Donald, SW SE SW 21-4s-14w, pumped 180 bbl., 80-qt. shot 2,840-59 ft., 60-qt. shot 2,842-54 ft., Aux Vases 2,830-54 ft., T.D. 2,860 ft.
P. Miller 6-A Ford heirs, NW SE SW 16-4s-14w, pumped 50 bbl., McClosky 2,933-35 ft., T.D. 2,990 ft.
Mabee Drlg. 3 Knight, SE SW SW 4-4s-14w, pumped 12 bbl. from Cypress sand and Benoist, 50-qt. shot 2,682-2,703 ft., 30-qt. shot 2,550-60 ft., Cypress sand 2,547-65 ft., Benoist 2,670 ft., T.D. 2,713 ft., P.B. 2,707 ft.
New Haven: Sinclair 4 Boetticher, NE NE SW 19-7s-11e, swabbed 160 bbl. in 12 hr., 10-qt. shot 2,720-30 ft., Aux Vases 2,717-30-30 ft., T.D. 2,730 ft.
Sinclair 3 Boetticher, NW NE SW 19-7s-11e, pumped 50 bbl., 40-qt. shot 2,710-30 ft., perf. 2,100-24 ft., 2,438-52 ft., Tar Springs 2,108 ft., Cypress sand 2,438-53 ft., T.D. 2,778 ft., P.B. 2,685 ft.
West Irons: Tide Water 3 Shain, NW NE SE 23-6s-8e, pumped 104 bbl., Hardinsburg 2,496 ft., T.D. 2,-543½ ft.
Storms: Sinclair & Ohio 11 Randolph, NE SW SW 12-6e-9e, swabbed 150 bbl., 10-qt. shot 2,260-70 ft., Waltersburg 2,254 ft., T.D. 2,271 ft.
Calvin: J. H. Jones 1 Sanders, NE NW SE 12-4s-10e, dry at 1,825 ft.
Meyers 1 Leathers, S½ S½ NE 12-4s-10e, dry at 3,200 ft., Menard 2,320 ft., Vienna 2,419 ft., Tar Springs sand 2,435 ft., Glen Dean 2,520 ft., Hardinsburg sand 2,595 ft., Golconda 2,615 ft., Barlow 2,741 ft., Cypress 2,780 ft., Paint Creek 2,885 ft.,
*(Continued on Page 78)*

## California Fields

*(Continued from Page 61)*

Corp. 1 Lamp, 31-2s-7w, drilling 728 ft. in surface sand, elev. 560 ft.
Coyote West district, Orange County: Wilshire-Annex 1 Comm., 14-3s-11w, drilling 9,031 ft. in hard sand and shale, may abandon soon, elev. 275 ft.
East Santa Fe Springs district, Los Angeles County: Sierra Pet. Co. 1 Cole, 2-3s-11w, rig.
Manhattan Beach district, Los Angeles County: Dominguez Ext. Oil Co. 1 Sunset, 19-3s-14w, redrilling 5,730 ft., streaks of oil sand, elev. 135 ft.
Mines district, Los Angeles County: Six Companies 1 Poso Seco, 2-3s-15w, location graded, joint test by Standard, Union, Texas, Associated, Richfield, and Shell which bought acreage in fee a few years ago.
Palos Verdes district, Los Angeles County: Newton Dev. Co. 1 P.V., 13-5s-15w, drilling 1,898 ft. in hard sand and shale with cable tools, some basalt found.
Puente district, Orange County: Sunset Oil Co. 1 Baldwin, 11-2s-11w, rig erected.
Whittier district, Los Angeles County: Continental Oil Co. 1 Turnbull, 13-2s-11w, rigging up for immediate spud.
Wilmington district, Los Angeles County: J. F. Wilcox 1 North, 20-4s-13w, drilling 1,892 ft. in sand, elev. 46 ft.

## Oak Canyon and San Martinez

### Getting Active Play

The Newhall-Castaic area is still the hottest single spot in the state and the recent discovery of a new field on the San Martinez anticline by Fred Jasper and discovery of a new deep Modelo zone in the Oak Canyon field by Western Gulf Oil Co. has increased interest in the area. On the San Martinez anticline, three offsets to Jasper's discovery well are already under way. In the Oak Canyon field Western Gulf will probably retard development work as long as possible but will be obliged to undertake additional drilling within another 30 days. On the jail-farm property in the Castaic region, Barnsdall Oil Co. is drilling ahead in the second well at 7,300 ft. and as this depth is about 400 ft. below the top of the Miocene. No showings of importance have yet been found. A number of other wildcats are getting under way in this region and a consistent gain should be experienced during the remainder of the year. The Newhall-Castaic region has the advantage of its proximity to the Los Angeles Basin center of consumption in addition to relatively low drilling costs. Pipe lines of General Petroleum Corp. and Richfield Oil Corp. run through the district within close distance and will probably move much of future production in this district. A considerable quantity is being moved to Los Angeles Basin refineries via tank truck.

**Lower Part of Rincon**

**Deep Test to Be Redrilled**

Chanslor Canfield Midway Oil Co. has been held up for several weeks in its deep test in Rincon field of Ventura County and the company has finally decided to drill a window in the 6⅝-in. casing cemented at 8,265 ft. and redrill the lower part of the hole. The crew has made some little progress during the past few weeks but recovery has been so slow that it has been decided that it would be more advantageous to redrill the lower portion of the hole. This well has encountered what appears to be an excellent zone in lower Pliocene rocks although no test was made before mechanical trouble developed. The well has flowed at rather frequent intervals during the course of fishing jobs so it is assumed that it has plenty of kick. This deep test is 9-C Hobson of Chanslor Canfield Midway Oil Co. and is bottomed in oil sand at 9,337 ft. with top of the fish at 8,014 ft. It is the deepest well drilled in the Rincon field to date and will result in considerable new work and redrilling and deepening work if successfully completed as a good flowing well. If deeper production is developed by this operator high up in the hills at Rincon it may also lead to additional tideland development inasmuch as the western part of the Rincon structure is buried beneath the Pacific Ocean and is susceptible of development. The depth at which the new probable pay has been reached is relatively shallow and presents no special problems.

**COASTAL DISTRICT COMPLETIONS**

Newhall, Los Angeles County: Texas 1 Whitnah, 14-3n-16w, abandoned, T.D. 4,999 ft., P.B. 3,664 ft. casing: 870 ft. of 10¾-in. landed 3,648 ft. and perf. 3,217-38 ft., 3,268-78 ft., 3,338-69 ft., 3,399-3,471 ft., 3,540-3,648 ft., swabbed salt water in Modelo zone with trace of oil, salt water tested 935 grains per gallon.
Santa Maria Valley, Santa Barbara County: Union 1-4 Moretti, 24-10n-34w, flowed 693 bbl., 14.8-gravity, 0.5 per cent cut, 32/64-in. bean, casing-head pressure 165 lb., T.D. 2,461 ft., perf. 2,140-2,459 ft., completed in Monterey, bottomed in Franciscan basement 2,431-61 ft.
Union 3 Nicolai, 28-10n-34w, flowed 696 bbl., 14.2-gravity, 1.5 per cent cut, T.D. 5,440 ft., perf. 5,126-5,438 ft., completed in Santa Maria Valley zone.
South Mountain, Ventura County: South Mountain Oil Co. 1 S.M., 19-3n-20w, pumped 35 bbl., 30.4-gravity, 10 per cent cut, T.D. 2,748 ft., perf. 2,560-2,750 ft., completed in South Mountain zone.
Ventura Avenue, Ventura County: Associated 2 V.L.W., 23-3n-23w, flowed 200 bbl., 32.8-gravity, 0.9 per cent cut, 390.000 cu. ft. gas, 40/64-in. bean, pressures 100/400 lb., T.D. 8,482 ft., perf. 8,402-82 ft., deepened from 7,200 ft. and completed in 57 zone of Pliocene age.
Associated 37 V.L.W., 25-3n-23w, flowed 518 bbl., 27.2-gravity, 9 per cent cut, 487,000 cu. ft. gas, 128/64-in. bean, pressures 50/650 lb., T.D. 6,749 ft., perf. 6,264-6,744 ft., completed in middle series of zones of Pliocene age.

**COASTAL DISTRICT WILDCATS**

Aliso Canyon, Los Angeles County: Associated 1 Mission, 26-3n-16w, rig and equipment.
Castaic district, Los Angeles County: Barnsdall 1-19-A Honor Rancho, 7-4s-16w, drilling 7,275 ft. in Miocene gray sand and shale, cleaning out, elev. 1,244 ft.
Del Valle district, Los Angeles County: R. E. Havenstrite 4 Lincoln, 16-4n-17w, drilling 5,571 ft. in sand and shale, elev. 1,285 ft.
Elwood district, Santa Barbara County: Barnsdall-Richfield 88-11 State, tideland, drilling 4,257 ft., top Vaqueros 3,141 ft., elev. 21 ft.
Loma Grande district, Monterey County: Loma Grande Oil Co. 1 Corey, 23-24s-10e, T.D. 3,790 ft. in shale, fishing drill pipe, elev. 1,500 ft.
Los Flores district, Santa Barbara County: Standard 2 Los Flores, 27-9n-33w, drilling in sand and shale 6,025 ft., elev. 1,084 ft.
Newhall district, Los Angeles County: Aztec Oil Co. 1 Sanborn, 6-3n-16w, T.D. 4,300 ft. in sandy shale, to move in heavier equipment, elev. 1,516 ft.
St. Anthony Oil Co. 1 La Salle, 10-3n-16w, drilling in sand 3,698 ft., showing gas, elev. 1,480 ft.
Tunnel Oil Co. 1 Needham, 13-3n-16w, graded road and location, expect production around 1,550 ft., elev. 1,681 ft.
Rincon, Ventura County: C.C.M.O. 9-C Hobson, 17-3n-24w, drilled to 9,338 ft. in sandy shale with streaks of oil sand, lost swab, found tubing stuck, flows occasionally during fishing operations, this is deepest well drilled in field to date, elev. 49 ft.
San Martinez district, Los Angeles County: Bankline Oil Co. 1 Videgain, 17-4n-17w, location graded, elev. 1,750 ft.
Standard 1 Seoulveda, 17-4n-17w, grading location.
Ohio 1 Vasquez, 17-4n-17w, grading location.
Towsley Canyon, Los Angeles County: Barnsdall and Bandini 1 Limebacher, 17-3n-16w, building road to location.

# Lower Wilcox May Produce in Deep Joe's Lake Test

By NEIL WILLIAMS

HOUSTON, Tex., July 21.—In the Joe's Lake field, Tyler County, Republic Production is running casing in deep Wilcox test, preparatory to testing broken sand sections which showed possible production on an electrical log. The well, 52 Hurd fee, is bottomed at 10,625 ft. with possible oil, gas or distillate production indicated at intervals from 10,400 ft. to the total depth. The discovery of this field in 1937 marked the beginning of the present Wilcox play. Production was found in the upper Wilcox at 7,600-7,700 ft., and to date some 45 producing wells have been completed, making it one of the most important Wilcox producing sand fields to be found along the Texas sector of the trend. The field is the most easterly located Wilcox area in Texas, and testing of the deep sand follows the recent strike in the Neale field, Beauregard Parish, located approximately 40 miles due east.

**SUMMARY OF COMPLETIONS**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: West Ranch | 3 | 738 | 16,278 |
| Other fields | 8 | 1,223 | 53,973 |
| Dry holes: Wildcats | 4 | ..... | 33,575 |
| Total | 15 | ..... | 103,826 |

Finding of additional sands in the lower Wilcox is the most outstanding development accomplished in the area during the year. The depth from which production may be found is practically unlimited and these recent strikes are encouraging deeper drilling in other fields in which production is already found in the upper Wilcox. Another such test holding attention is Gulf 48 Wing located on the south edge of the Segno field, Polk County, now drilling below 10,780 ft. after logging gas and distillate sand just below 10,000 ft. In the Garwood field, Colorado County, in which distillate production was opened early this year at 9,400 ft., W. R. Davis Co. is moving in heavier equipment to deepen 3-A Brownston to the lower Wilcox. Development in this area during the past few months has been confined to the Cockfield sand at 6,100 ft. The present well cored oil and gas sands in the regular Cockfield pay which marks up an 1,800-ft. north extension to production.

**Maurbro Extension Test Continues to Give Trouble**

In Jackson County, and located 1 mile east of the Maurbro field, Magnolia Petroleum Co. continues to have trouble in completing 1 Vordick. The well swabbed salt water through perforated casing at 5,242-47 ft., and while coming out of the hole after cementing off the perforations, the well blew out through the drill pipe, blowing gas, salt water and sand. Drill-stem testing in this section 2 weeks ago recovered pipe-line oil, and the well is expected to be completed for a producer although it may mark the eastern limits of the field. Additional development is being started to the southeast where an important extension to production was recently made.

Prospects of opening a new producing area west of the Withers field, Wharton County were not encouraging as Sinclair Prairie 1 H. R. Carlson recovered salt water and tested 75 lb. working pressure when tested through perforated casing at 7,535-40 ft. Location is in the E.T.R.R. Survey, Section 65.

Operators interested in wildcatting activity in Matagorda County were watching the outcome of a scheduled production test at Stanolind 1 C. Doman, 1 mile west of the Lucky field. Total depth of the hole is 10,000 ft. with 5½-in. casing cemented at 9,471 ft., and the casing was being perforated after making two cement-squeeze jobs at 9,406-09 ft. and 9,455-60 ft. The interval to be tested is deeper than the discovery pay of the Lucky field found at approximately 8,800 ft.

On the southeast side of the Eureka field, Harris County, Jack W. Frazier was preparing to retest 8 Varnerly Realty Co. after a production test of a possible new sand recovered salt water. Total depth is 8,960 ft. and the test was made through perforated casing at 8,882-8,911 ft., and 8,914-24 ft. Main production in the field proper is from the Yegua at approximately 8,100 ft.

**TEXAS GULF COAST DRILLING REPORT**

Fort Bend County: H. C. Cockburn 1 W. C. Leveridge, J. M. McCormick Sur., T.D. 7,880 ft., cut and pulled drill pipe to 5,500 ft., W.O.
Houston Oil Co. 1 E. E. Thompson, Clodine field, drilling shale 2,055 ft.
Providence Oil Co. 1 J. J. Settegast, Joel McCrary Sur., top Cockfield 6,867 ft., Discorbis Yeguaensis 7,040 ft., Eponides Yeguaensis 7,130 ft., coring shale 7,291 ft.
Harris County: Harold Taylor 1 W. S. Swilley, V. Bianco Sur., drilling shale 3,750 ft.
Strake & McDannald 1 Oatex, E. Simpson Sur., drilling shale 7,338 ft.
Jefferson County: A. T. McDannald 1 Hebert & Trust, F. Hardin Sur., top flat Marginulina 9,181 ft., T.D. 10,006 ft., hole heaved, stuck drill stem, washing over.
Montgomery County: Continental 1 Foster Lumber Co., Jose M. de La Garza Sur., 10¾-in. casing 1,226 ft., drilling shale 2,400 ft.
Atlantic 1 Foster Lumber Co., Gills Sur., drilling shale 3,755 ft.
Glenn McCarthy 1 Sayle, J. Scott Sur., rigging up.
Walker County: Mike Hogg et al 1 Gibbs Bros., C. W. Stewart Sur., drilling shale 4,700 ft.

**TEXAS GULF COAST COMPLETIONS**

**Wildcats**

Brazoria County: Glenn McCarthy 1 J. R. Marmion, dry, T.D. 11,475 ft.
LaVaca County: Herton 1 Hohmann, dry, T.D. 6,420 ft.
Orange County: William Dickey et al 1 George Locke, dry, T.D. 7,033 ft.

**Fields**

Esperson, Liberty County: General Crude 26 Davis, 178 bbl., 13 hr., ¼-in. choke, T.D. 8,559 ft.
Fannett, Jefferson County: Gulf 11 Bordages, 188 bbl., ⅛-in. choke, perf. casing 8,371-77 ft., T.D. 8,379 ft.
Hardin, Liberty County: J. R. Nowery 3 Humphrey, 165 bbl., ⅛-in. choke, T.D. 7,648 ft., P.B. T.D. 7,625 ft.
Hull, Liberty County: Republic 170 Dolbear, 203 bbl., ¼-in. choke, T.D. 2,620 ft.
Lolita, Jackson County: Skelly 5 Mitchell, 206 bbl., 5/32-in. choke, perf. casing 5,282-99 ft., T.D. 5,305 ft.
Lovells Lake, Jefferson County: Shell 1 Pleasant, 130 bbl., ⅛-in. choke, T.D. 7,809 ft.
Van Vleck, Matagorda County: Skelly 23-B Cobb, 138 bbl., ¼-in. choke, T.D. 7,495 ft.
West Ganado, Jackson County: L. G. Glasscock 1 Carstens, dry, T.D. 6,215 ft.
Pure 5 Mauritz, 15 bbl., ¼-in. choke, perf. casing 5,204-10 ft., T.D. 6,157 ft.
West Ranch, Jackson County: W. S. Boyle 5 L. Ranch, 114 bbl., 9/64-in. choke, perf. casing 5,464-72 ft., T.D. 5,648 ft.
Magnolia 150-A West ranch, 299 bbl., ¼-in. choke, perf. casing 5,513-19 ft., T.D. 5,522 ft.
Magnolia 175-A West ranch, 325 bbl., ⅛-in. choke, perf. casing 5,102-07 ft., T.D. 5,108 ft.

## North Louisiana, Arkansas

(Continued from Page 56)

**ARKANSAS COMPLETIONS**

Troy, Nevada County: Berry Asphalt Co. 2 Grayson, NW NW SE 4-14-20, T.D. 2,712 ft., dry, Tokio 2,164 ft.
Urbana, Union County: Marine Oil Co. 16-A Thompson, SE SW SE 31-18-13, 218 bbl., 15 per cent water, ¼-in. choke, T.P. 250 lb., C.P. 875 lb., T.D. 3,000 ft., 7-in. casing 2,988 ft.

**ARKANSAS WILDCATS**

Clark County: Coker, Christman & Grieves 1 Williams, NE NE NE 7-11-20, squeezed perf. 1,382-84 ft., waiting on cement.
Coker, Grieves, et al 2 Williams, NE NE 7-11s-19w, 5½-in. casing 602 ft., waiting on cement 605 ft.
Columbia County: L. L. Prock 1 Young, NE SE 21-15-21, rigging up.
Howard County: DeGrazier et al 1 Dierks Lbr. Co., SW SW 7-8s-28w, S.D. 550 ft.
Lafayette County: Ohio Oil Co. 1 Garner, NW SW 13-16s-24w, rigging up.
Tide Water Associated Oil Co. and Seaboard Oil Co. 1 Moore, SW SE 29-17s-24w, drilling 4,705 ft. lime and shale.
Lee County: Stanley A. Thompson 1 Comer, NE NE NE 17-3n-2e, drilling 800 ft.
Ouachita County: Arkansas Fuel Oil Co. 1 McGaughty, NE NW NW 6-15s-18w, T.D. 5,336 ft., waiting orders.
Saline County: A. W. Givens 1 Williams, NE NE 18-3s-15w, S.D. 1,090 ft.
St. Francis County: D. T. Hargraves 1 Peters, NE NE NE 21-4n-1w, T.D. 1,099 ft., repairing rig.

**ARKANSAS NEW WILDCAT TESTS**

Ouachita County: Theodore Davis 1 Fort Smith Timber & Land Co., NW SW 16-12-17.

**EAST TEXAS BORDER COMPLETIONS**

Wildcat, Panola County: Crow Drlg. Co. 1 Frost Lumber Ind., Thomas Kelly A-372 Sur., T.D. 6,347 ft., dry.

**EAST TEXAS BORDER WILDCATS**

Sabine County: Sturm & Womack 1-A Keith, L. Groce Sur., perf. 4,714-16 ft., tested brackish water and some oil, salt water broke in; cementing to retest.
San Augustine County: Roper & Todd 1 Long Bell, N. Hyden Sur., stuck drill stem, lubricating, T.D. 5,063 ft.

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## APPALACHIAN FIELDS

# Sewickley Well Finds Water In Oriskany on Local High

By STAFF CORRESPONDENT

PITTSBURGH, Pa., July 21.—In Beaver County, Pennsylvania, L. D. McMichaels et al plugged and abandoned the wildcat on the Elmer Pflug farm on Big Knob in New Sewickley Township after striking salt water in the Oriskany sand. The Onondaga was topped at 5,282 ft., Oriskany 5,437 ft., and in the upper part of the sand there was about 3,000 cu. ft. of gas showing. At 5,445 ft. salt water broke in and the test was bottomed at 5,450 ft. The test was located after seismograph studies on a local high apparently verified as the top of the Onondaga was topped at 4,129 ft. subsea and regionally ran high.

After petrographic study, it was determined that the Oriskany sand was topped at 8,304 ft. in the wildcat being drilled by the New Penn Development Co. et al on the Gregg L. Neel farm on Laurel Ridge in Stewart Township, Fayette County. The chert cap rock extended from 8,298 to 8,304 ft. It is now drilling at 8,331 ft. and the sand is somewhat limy and large pieces are found in the samples. There was a little showing of gas in the Onondaga chert at about 8,250 ft. but none since then.

In Maryland these operators straightened the junction of the old and new holes at 5,570 ft. in the wildcat on the Humberson farm on the Accident dome in Garrett County drilled ahead to 5,645 ft. and will try to run casing to that point.

On Chestnut Ridge in Fayette County, Peoples Natural Gas Co. is drilling 4 Pieldmont Coal Co. at 5,671 ft., and No. 5 at 4,300 ft. These are in South Union Township; New Penn Development Co., William E Snee et al are drilling 1 Kirby at 1,012 ft.; 1 Carothers at 1,305 ft. with 9⅝-in. o.d. casing set at 1,245 ft. In North Union Township these operators are deepening 1 Piedmont Coal Co.. and have reached 7,128 ft. with no large increase in gas volume. Greensboro Gas Co. is drilling 1 Barton at 770 ft.

In Armstrong County T. W. Phillips Gas & Oil Co. et al are drilling at 1,070 ft. in the deep test on the W. T. Beidenbach farm in West Franklin Township, with 8¼-in. casing set at 640 ft.

In Beaver County St. Joseph Lead Co. is drilling by tools lost at 4,939 ft. in the deep test on the J. P. Koehler farm in Center Township.

**Allegheny County**

Shaler Township: O. Miller 1 McElhaney, 5 bbl., Snee sand, T.D. 1,900 ft.

**Armstrong County**

Parks Township: Apollo Gas Co. 1 Thomas I. Schaeffer. 852,000 cu. ft. gas, Hundred-foot sand, T.D. 1,604 ft.

South Buffalo Township: Local Co. 1 Robert Wray, 169,000 cu. ft. gas, Fifth sand, T.D. 1,652 ft.

**Greene County**

Jackson Township: Manufacturers 1 Charles Lemons, 301,000 cu. ft. gas, Fourth sand 3,238-58 ft., gas 3,247-50 ft., T.D. 3,430 ft.

**Indiana County**

South Mahoning Township: Equitable 2 S. H. Heberling, dry, through Bradford sand, T.D. 3,866 ft.

**Jefferson County**

Beaver Township: T. W. Phillips 1 I. A. Carrier, 358,000 cu. ft. gas, Hundred-foot sand, T.D. 1,354 ft.

### WEST VIRGINIA

In Jackson County Joe Rubin et al shot the test on the Jackson County Bank lease (William H. Hunter) in Ravenswood district, with good results. The Corniferous lime was topped at 4,797 ft., Oriskany 4,911 ft., best gas gage 580,000 cu. ft. at 4,923 ft.; shot 4,911-51 ft. It gaged 4,383,000 cu. ft. of gas after shot and rocked up to 1,900 lb. in 12 hours.

In Monongalia County the test of the Hope Natural Gas Co. on the H. C. Greer et al lease in Morgan district, is drilling at 6,840 ft. and is delayed with repairs to sand reel. In Lewis County this company has reached 4,130 ft. with the rotary on the Albert Woofter farm in Freemans Creek district. In Preston County M. E. Davis et al are drilling the wildcat on the George Cobun et al lease in Valley district at 900 ft., and ran casing to 800 ft.

**Boone County**

Crook district: Pond Fork Oil & Gas Co. 18 fee, 377,000 cu. ft. gas, brown shale, T.D. 4,160 ft.
Scott district: Cambridge Gas Co. 1 J. T. Price, 211,000 cu. ft. gas, brown shale, T.D. 3,530 ft.
Washington district: South Penn 62 Yawkey-Freeman, small gas well, T.D. 2,946 ft.

*(Continued on Page 79)*

### SUMMARY OF COMPLETIONS

*Southwest Pennsylvania*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 1 | 5 | 1,900 |
| Gas wells | 4 | *1.6 | 8,476 |
| Dry holes | 1 | ..... | 3,430 |
| Total | 6 | ..... | 13,806 |

*West Virginia*

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 3 | 20 | 4,993 |
| Gas wells: Oriskany | 5 | *5.7 | 25,443 |
| Other | 9 | *1.7 | 27,375 |
| Dry holes | 1 | ..... | 1,952 |
| Total | 18 | .... .... | 58,763 |
| Recompletions | 4 | †15 | ..... |

*Million cu ft. †Plus 0.1 million cu. ft.

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# Large Gassers Completed in Scattered Ohio Districts

By STAFF CORRESPONDENT

NEWARK, Ohio, July 21.—Gas operators had a successful week with the Newark field in Licking maintaining the lead, completing four fair gas wells. Muskingum County yields a 4,000,000-cu. ft. gasser at 4,010 ft. Cuyahoga County south of Cleveland, reports a 2,500,000-cu. ft. well from the Newburg. In the shallow sand area, Meigs County has a 2,000,000-cu. ft. gasser in the Maxon.

Ashtabula County wildcat test by the Ohio Oil Co. topped the Clinton sand at 2,720 ft., drilling in sand at 2,771 ft., no production. The test is located in Lot 36, Saybrook Township, on John Metcalf tract. The bottom of the lime was logged at 2,650 ft. and the shell at 2,690-2,710 ft.

**Ashland County**

Lake Township: Gold Crown 12 A. A. Easley, Sec. 21, 10 bbl. and 300,000 cu. ft. gas, shot, Berea, T.D. 740 ft.

**Athens County**

Ames Township: Carpenter & Glazier 1 J. W. Kuhns, Sec. 12, 1 bbl., shot, first Cow Run, T.D. 190 ft.
Carpenter & Glazier 2 J. W. Kuhns, Sec. 12, dry, first Cow Run, T.D. 178 ft.
Bern Township: Ohio Fuel 2 P. A. Ross, Sec. 18, 280,000 cu. ft. gas, Mackburg-8, T.D. 1,017 ft.

**Coshocton County**

Perry Township: Rutledge, Robinson & Mosholder 1 Earl Hains, SE Sec. 24, 840,000 cu. ft. gas, Clinton, T.D. 3,118 ft.
Blackburn et al 1 E. E. Ashcraft, SW Sec. 24, 600,000 cu. ft. gas, Clinton, T. D. 3,001 ft.

**Cuyahoga County**

Independence Township: Kime et al 2 J. Kinzer, Lot 15, 2,500,000 cu. ft. gas, Newburg, T.D. 2,716 ft.

**Guernsey County**

Liberty Township: Belmont Quadrangle Drlg. Corp. 1 Ella Farley, Sec. 16, dry, Gordon, T.D. 1,780 ft.

**Knox County**

Howard Township: H. E. Perkins 1 Clarence Horn, 180,000 cu. ft. gas, Clinton, T.D. 2,591 ft.
Union Township: Ohio Fuel 1 Nettie Shultz, Sec. 5, dry, Clinton, T.D. 2,776 ft.

**Lawrence County**

Washington Township: Portage Producers 14 Cambria Clay Products, Sec. 14, 480,000 cu. ft. gas, salt sand, T.D. 434 ft.

**Licking County**

Madison Township: Innis Bros. 1 J. W. Long, second quarter, 1,000,000 cu. ft. gas, shot, Clinton, T.D. 2,565 ft.
Ohio Fuel 1 W. Thompson, second quarter, 1,600,000 cu. ft. gas, Clinton, T.D. 2,570 ft.
Mary Ann Township: Ohio Fuel 1 John Maharg, Sec. 6, 3,500,000 cu. ft. gas, Clinton, T.D. 2,706 ft.
Newton Township: Gail Early et al 1 Ray Gardner, 720,000 cu. ft. gas, Clinton, T.D. 2,595 ft.

**Meigs County**

Rutland Township: Fleming 1 James Saxton, Sec. 22, 2,100,000 cu. ft. gas, Maxon, T.D. 1,055 ft.
Sutton Township: Roush Bros. 3 Wilbur D. Roush, Lot 289 at Syracuse, dry, deepened from 1,800 ft., lost tools at 2,100 ft. and had to abandon.

**Monroe County**

Bethel Township: Luburgh Co. 27 H. Swartz, Sec. 10, input, first Cow Run, T.D. 693 ft.

**Muskingum County**

Harrison Township: Gas Producing Co. of Ohio 1 Allen Dickson, SW Sec. 11, 1,500,000 cu. ft. gas, Clinton, T.D. 4,238 ft.
Ohio Fuel Gas Co. 3 Frank E. Staker et al, NW Sec. 11, 300,000 cu. ft. gas, Clinton, T.D. 4,220 ft.
Newton Township: Atha Oil Co. 1 Dora Roberts, SE Sec. 14, 500,000 cu. ft. gas, Clinton, T.D. 3,380 ft.
Mehowa Oil & Gas Co. 2 E. L. Offenbacher, 4,100,000 cu. ft. gas, Clinton, T.D. 4,010 ft.
Ohio Fuel 1 H. C. Floyd, Sec. 14, 600,000 cu. ft. gas, shot, Clinton, T.D. 4,050 ft.

**Noble County**

Jefferson Township: George Eichorn 1 fee, Sec. 3, dry, stray (water), T.D. 810 ft.
Noble Township: Bingham et al 1 D. Wheeler, Sec. 34, 1 bbl., stray, T.D. 199 ft.

**Perry County**

Clayton Township: Pure Oil Co. 1 Jesse H. Cannon, NE Sec. 7, 130 bbl. and 75,000 cu. ft. gas, Clinton, T.D. 3,280 ft.
Preston Oil Co. 3 Wm. H. Pettit, NW Sec. 17, 16 bbl. and 50,000 cu. ft. gas, Clinton, T.D. 3,270 ft.

**Tuscarawas County**

Dover Township: Columbian Carbon 1 Ervin Bair, Sec. 3, 300,000 cu. ft. gas, shot, Clinton, T.D. 4,766 ft.

**Washington County**

Barlow Township: McGinnis 3 L. McCurdy, Sec. 2, 100,000 cu. ft. gas, Maxon, T.D. 1,422 ft.
Albert H. Jahn et al 2 E. L. Benson, Lot 720 at Fleming, dry, Squaw sand, T.D. 1,540 ft.

## SUMMARY OF COMPLETIONS

**Ohio**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 5 | 158 | 7,679 |
| Gas wells | 21 | *20.8 | 54,322 |
| Dry holes | 5 | ..... | 7,084 |
| Total | 31 | ..... | 69,075 |
| Input | 1 | ..... | 693 |
| Recompletion | 1 | ..... | ..... |

**Indiana**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 8 | 225 | 21,098 |
| Gas wells | 1 | *0.3 | 727 |
| Dry holes | 1 | ..... | 485 |
| Total | 10 | ..... | 22,310 |

**Eastern Kentucky**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 2 | 8 | 2,100 |
| Gas wells | 14 | *10.2 | 39,993 |
| Dry holes | 3 | ..... | 4,878 |
| Total | 19 | ..... | 46,971 |
| Recompletions | 2 | *0.6 | ..... |

**Western Kentucky**

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 3 | 35 | 1,359 |
| Dry holes | 6 | ..... | 9,099 |
| Total | 9 | ..... | 10,458 |
| Recompletions | 2 | ..... | ..... |

*Million cu. ft.

Independence Township: H. A. Jones 1 H. J. Patterson, Sec. 22, 20,000 cu.ft. gas, Squaw, (Berea dry), T.D. 1,810 ft.
Liberty Township: Otto Heidman et al 1 J. Doyle, Sec. 15, 20,000 cu. ft. gas, Maxon, T.D. 1,344 ft.

**Wayne County**

Sugar Creek Township: Eckard Bros. 1 fee, Sec. 2, 15,000 cu. ft. gas, Berea, T.D. 714 ft.

## INDIANA

EVANSVILLE, Ind., July 21.—The largest producer yet obtained in Spencer County was completed last week for an estimated 150 bbl. daily. The test, George Hedges 1 Eble, SE SE NW 7-7s-7w, 4½ miles west of Richland, is producing from the first pay sand at 1,060 ft. There are three other producers in the area just east of the well while Wilson 1 McCoy, ¼ mile west of 1 Eble, was to be completed this week. Three additional tests are to be drilled soon on farms adjoining the Eble lease.

*GIBSON COUNTY.*—Location was staked last week by Warren & Bradshaw Drilling Co. for a 2,000-ft. McClosky test just west of Francisco in Gibson County. The test, 1 Reavis, SW NW NE 24-2s-10w at the edge of an abandoned shallow field, is a Carter farmout and will be owned by Warren & Bradshaw. Drilling is under way and at latest reports the well was down to 1,185 ft.

*POSEY COUNTY.*—A closely watched Posey County wildcat, Joe Dawson 1 Aldrich, SE SW SE 36-5s-15w, was drilling below 2,250 ft. at the end of the week with no shows yet reported. The test, a Gulf farmout, is just east of Maunie, Ill.

**INDIANA COMPLETIONS**

**Wildcats**

Newton County: A. C. Thomas 1 Henekie, SE SE SE 36-30n-9w, dry at 485 ft.
Posey County: Whisenant & Trenchard 1 McFadden SW NW SW 16-6s-14w, pumped 44 bbl. oil and 3 bbl. water in 12 hr., 65-qt. shot 2,476-2,506 ft., T.D. 2,820 ft., P.B. 2,506 ft. *Pool opener.*
Warrick County: Kenn.-Penn. Oil Corp. 1 Metz, SE SW NW 10-6s-7w, abandoned location.

**Fields**

Brown, Daviess County: R. D. Brown, Inc., 2 McCracken, N½ NW NE 21-2n-6w, 300,000 cu. ft. gas, Barlow 698 ft., sand 705 ft., pay 718-25 ft., T.D. 727 ft.
East Calvin, Posey County: Continental 2 Mumford B, NW NW SW 33-3s-13w, pumped 5 bbl. oil and 3 bbl. water, 60-qt. shot 2,444-59 ft., T.D. 2,839 ft., P.B. 2,454 ft.
Griffin, Gibson County: Papoose 3-B Cooper, SW SE SW 12-3s-14w, pumped 18 bbl. oil and 18 bbl. water, natural, pay 2,129-53 ft., T.D. 2,925 ft.
Heusler, Vanderburg County: Lloyd Sparrow et al 2 Steinkamp, NW SE NW 5-7s-11w, pumped 11 bbl., 40-qt. shot 1,058-74 ft., T.D. 1,074 ft.
Merom & Raley, Sullivan County: Reynolds 1 Poe, NE NE SW 3-8n-10w, dry, old T.D. 1,477 ft., probably will not drill deeper.
South Griffin, Gibson County: Continental 5 Kleiderer B, SW NE SW 26-3s-14w, pumped 35 bbl., 80-qt. shot 2,778-98 ft., T.D. 2,811 ft.
Continental 23 Keck, SE NE SW 27-3s-14w, pumped 24 bbl., 2,000 gal. acid, pay 2,873-76 ft., T.D. 2,901 ft., P.B. 2,844 ft.
McBride et al 4 Blood, SE NE SE 28-3s-14w, pumped 55 bbl., 10-qt. shot 2,770-90 ft., T.D. 2,917 ft.
South Griffin, Posey County: Winter 2 Keck, NE NE NW 34-3s-14w, pumped 33 bbl., 50-qt. shot 2,786-2,806 ft., T.D. 2,811 ft., P.B. 2,808 ft.

**INDIANA DRILLING REPORT**

Crawford County: Reece-Dietz et al 1 Esarey, NE NW NE 36-3s-1w, drilling 990 ft.
Daviess County: J. W. Cannon 1 Walker, N½ SE SE NE 5-2n-5w, T.D. 553 ft., will run 5-in.
Swartzentruber et al 1 Beck, SE SW NE 8-2n-5w, drilling 430 ft.
Elkhart County: A. W. Downs 1 Gark estate, NE SW SE 11-38n-4e, drilling 555 ft.
M. C. Fletcher 1 Baughn, NE SE SE 13-38n-4e, drilling 1,880 ft.
Gibson County: R. N. Sylvester 1 Potts, NW SW SE 24-1n-10w, first report, spud.
R. S. Brown 1 Watts, SW SW NW 29-2s-12w, drilling 625 ft.
Nash Redwine 1 Cooper, SE NE NE 19-3s-14w, T.D. 2,095 ft., putting on pump.
Knox County: Midwest Dev. 1 Schaller, SE SE SE 23-2n-11w, Barlow 1,617-29 ft., Cypress 1,690 ft., drilling 1,703 ft.
Orange County: U. S. Oil 1 Willyard, SW NW NE SW 33-1n-1w, first report, old well drilling deeper from 574 ft., 7-in. 679 ft., drilling 680 ft.
Posey County: Venoble-Myles et al 1 Graulich, SW NE SW 13-7s-13w, drilling 500 ft.
Cherry & Kidd et al 1 Gray, W½ SW SE SW 35-3s-14w, Aux Vases 2,832-46 ft., 7-in., 2,832 ft., drilled plug and cleaning out.
Cherry & Kidd et al 1 Ford, SE SW NW 34-4s-13w, set 10-in. 140 ft., waiting on cement.
Joe Dawson et al 1 Aldrich, SE SW SE 36-5s-15w, T.D. 1,340 ft., resetting surface pipe.
Joe Bander et al 1 Allyn, SW SE NE 24-6s-13w, set 8-in. 144 ft., drilling 325 ft.
Rossi et al 1 Sanders, NE SE NW 26-6s-13w, set 10-in. 53 ft., Kincaid 1,650 ft., Clore 1,724 ft., drilling 2,005 ft.
Rossi et al 1 Seifert, NW NW SE 19-6s-12w, T.D. 2,385 ft., 5½-in. 2,370 ft., waiting on cement.
Martin et al 1 Harlem-Wolf, SE SE SW 22-7s-15w, T.D. 2,957 ft., P.B. 2,810 ft., 2,000 gal. acid 2,795-2,810 ft., swabbed 15 bbl. oil and 17 bbl. water in 16 hr., reacidized 3,500 gal., swabbed 14 bbl. oil and 20 bbl. water in 5 hr., testing on pump.
R. B. Martin et al 1 Vollmer, SE SE NE 23-8s-15w, first report, rigging up rotary.
Randolph County: Kniff et al 1 Clark, NW NE NW 16-19n-13e, set 6-in. 300 ft., drilling 315 ft.
David Culpepper 1 Lewis, SW SE SW 4-19n-13e, set 6-in. 247 ft., S.D. 1,311 ft.
Spencer County: Hedges et al 1 Ebley, SE NW NW 7-7s-7w, T.D. 960 ft., cleaning out after fishing job.
Starke County: A. A. Douglas 1 Oeding, NE SW NE 18-34n-2w, location, first report.
Sullivan County: W. J. Reynolds 1 Hyde, SW NE NE 9-8n-10w, S.D. 2,276 ft.

## EASTERN KENTUCKY

ASHLAND, Ky., July 18.—Two small oil wells and 14 gas wells have been reported completed in the eastern Kentucky area this week. The gas wells have a combined daily production of 10,200,000 cu. ft. Three dry holes were reported this week.

**EASTERN KENTUCKY COMPLETIONS**

**Menifee County**

T. J. Gilbert 1 J. E. Little, 3 bbl.

**Wolfe County**

David Lorbach, trustee, 1 Anna Rose, 5 bbl.

**Pike County**

Warfield 4949 John H. Harper, Russell Fork, T.D. 2,955 ft., brown shale 3,834,000 cu. ft. gas.
Warfield 4989 George Pinson, Jr., Russell Fork, T.D. 2,509 ft., 2,619,000 cu. ft. gas, Weir.
Columbian Fuel GW-855 Tierney Land Co., T.D. 1650 ft., 1,107,000 cu. ft. gas, Maxon.
Kentucky-West Virginia 615 A. H. Blackburn, Jones Creek, T.D. 2,825 ft., 60,000 cu. ft. gas, Big lime, 311,000 cu. ft., shale.
Kentucky-West Virginia 621 J. M. Taylor, Bushy Fork, 26,000 cu. ft. gas, Big lime, 60,000 cu. ft. gas, shale, 490 lb., T.D. 2,780 ft.
Kentucky-West Virginia 5302 James W. Bevins, Sloane Branch, T.D. 3,706 ft., 82,000 cu. ft. gas, Big lime, 650 lb.

**Knott County**

Inland 220 Hindman Settlement School, Smith Branch of Carr Creek, T.D. 3,197 ft., 793,000 cu. ft. gas, white slate.

**Floyd County**

Kentucky-West Virginia 5305 John Hamilton, Mitchell Fork, T.D. 2945 ft., Coffee shale, 184,000 cu. ft. gas, 650 lb.
Warfield 4529 Elkhorn Coal Corp., Morgan Fork, T.D. 2887 ft., 35,000 cu. ft. gas, old well drilled deeper.
Warfield 5015 Thomas E. James, Twin Branch, Johns Creek, dry at 2,645 ft.

**Martin County**

Warfield 4701 Tamsey Cassady, Coldwater Fork, T.D.

2,694 ft., 569,000 cu. ft. gas, shale, old well drilled deeper.
Warfield 5013 Amy Parsley, Blacklog Fork, T.D. 2,591 ft., 103,000 cu. ft. gas, shale.
Warfield 4255 H. H. Preece, Parsons Branch, T.D. 2,845 ft., 119,000 cu. ft. gas, shale.
Virginian Gas & Oil V-1295 W. H. Blankenship, Little Rockcastle, dry at 1,122½ ft.

**Johnson County**

Columbian Fuel GW-852 L. G. Meade, Line Branch, T.D. 2,457 ft., Corniferous lime, 103,000 cu. ft. gas, Big Six. *This is new field in this county.*

**Knott County**

United Carbon 930 Kycoga Land Co. No. 14, Alum Cave Branch, T.D. 3,050 ft., 135,000 cu. ft. gas, Big lime, acidized.
Southeastern 1 H. H. Smith and B. F. Combs, Jones Fork, T.D. 2,524 ft., 320,000 cu. ft. gas.

**Knox County**

Petroleum Exploration 1 Stratton Campbell, Stinking Creek, T.D. 2,080 ft., 1,200,000 cu. ft. gas, Corniferous.

**Menifee County**

T. J. Gilbert 1 Loveless farm, completed, dry.
T. J. Gilbert 1 Pat Spence, completed, recently shot but not pumped yet, data not available.

**EASTERN KENTUCKY DRILLING OPERATIONS**

Following are current eastern Kentucky drilling operations including a number available only through the month-end report:

**Johnson County**

Fred Baldwin et al 1, location.
S. C. Allen, Eli Ratliff, Colvin Fork, 2,000 ft., idle.
S. C. Allen, Lottie Rice, Road Fork, rigging up.
O. Jenkins, Robey Horn, Rockhouse Creek, rigging up.

**Lee County**

Rush Cable 8 E. S. Moore No. 8, Little Sinking, 400 ft.
South Penn Oil Co. 117 Flahaven Land Co., Town Hollow, 800 ft.

**Magoffin County**

Inland Gas Corp. 117 T. B. Whitaker, 1,658 ft., Big lime.
C. J. Sipple & Co. 11 William Salyer, Birch Branch of Burning Fork, 300 ft.
Bed Rock Petroleum 6 R. L. Salyer, Birch Branch of Burning Fork, rigging up.

**Knott County**

Kentucky-West Virginia Gas Co. operations:
No. 639 R. L. Conley, Jones Fork, 60 ft., spudding.
No. 5306 Levisa Thacker, Mill Creek, 2,065 ft., slate shells.
No. 5308 William Triplett, Long Fork of Johns Branch, 1,965 ft., Injun.
Inland Gas Corp. 223 Virginia-Kentucky Coal Corp., Balls Fork, 1,430 ft., Maxon.

**WESTERN KENTUCKY**

**Christian County**

Bluff Springs district: F. C. Thomas 1 J. H. Meacham, old T.D. 2,203 ft., worked over and abandoned.

**Daviess County**

Utica district: Stewart & Snyder 1 W. L. Birkhead, dry, T.D. 1,578 ft.
Farmer et al 4 J. E. Brown, North Tract, dry, T.D. 1,406 ft.
Master 1 W. D. Igleheart, south 43 acres, old T.D. 1,467 ft., deepened through McClosky, T.D. 1,763 ft., abandoned.

**Henderson County**

Spottsville district: Jack Cox 1 E. A. Allen, dry, T.D. 550 ft.
Niagara district: Schneider & Gwin 3 O. W. Overfield, 15 bbl., 20-qt. shot, Pennsylvania sand, 673-88 ft.

**Ohio County**

Oaks district: Ellmitch Oil Co. 26 G. H. Roberts, 10 bbl., 40-qt. shot, Jett sand, 261-77 ft., T.D. 279 ft.
Taffy district: Frank Randall et al 11 W. C. Hoover, 10 bbl., 30-qt. shot, Jett sand, 377-92 ft.
Friendship Church district: S. D. Johnson et al 23 C. R. Rhoades, dry, T.D. 666 ft.
Fordsville district: O. D. Vickers et al 6 Betty Cullen, drilling 300 ft.

**Muhlenberg County**

Graham Station district: W. S. Tatum 1 A. Adkins, dry, T.D. 2,064 ft.

**Union County**

Boxville district: Sun Oil and Kentucky Natural Gas 1 T. L. Blue, dry, T.D. 2,835 ft.

## Phillips Petroleum Co. Buys Interest In Oklahoma City Carey Lease

After months of negotiation, Phillips Petroleum Co. last week was closing a deal for the purchase of the interest of the Westgate Oil Co. in the famous Carey lease in the heart of the Wilcox zone of the Oklahoma City field for an estimated $500,000. The one-eighth interest known as the Westgate-Carey over-riding royalties, held by Tulsa and eastern investors, was not believed to be included in the deal.

The Carey lease, covering 19 city blocks in the center of the city, was one of the first large community blocks put together in the Oklahoma City field. Since the first well was completed in April 1931 the lease has produced an estimated 16,000,000 bbl. of oil. Several of the 15 wells on the lease have produced more than 1,000,000 bbl. each. Phillips is expected to take over operation of the wells this week.

## CANADIAN FIELDS

# Alberta Production Is Still Above Last Year's Level

By VICTOR LAURISTON

CHATHAM, Ont., July 19.—Crude and natural-gasoline production from all Alberta fields for the week ending July 7 averaged 27,753 bbl. daily compared with 25,889 bbl. daily for the corresponding week last year. The production included 26,888 bbl. of crude and 700 bbl. of natural gasoline from Turner Valley, 65 bbl. from the Steveville-Princess field, and 100 bbl. from other fields. New wells on production included three in Turner Valley with aggregate initial output of 2,832 bbl. daily; and one in the Steveville field with 65 bbl. daily. There were 25 wells drilling, 3 new tests spudded, 5 finished, 6 testing, 1 shut down and 1 abandoned.

**Tuurner Valley Lime Tests**

North Turner Valley: Miracle Royalties 1, LSD 3, 4-21-3w5, below 7,543 ft. after lime 7,524 ft.
Home Oil 7, LSD 14, 33-20-3w5, T.D. 8,630 ft., Madison 8,088 ft., acidizing and testing, big well indicated.
Home Oil 8, LSD 16, 15-20-3w5, finished at 8,441 ft., Madison 7,885 ft., acidizing and testing.
Royalite Oil 47, LSD 15, 15-20-3w5, T.D. 8,826 ft., Madison 8,365 ft., finishing tests for allowable.
Royalite Oil 56, LSD 12, 14-20-3w5, T.D. 7,912 ft., Madison 7,425 ft., acidizing and testing.
North Central section: Empress Syndicate 1, LSD 5, 2-20-3w5, standing cemented in top Madison, 8,684 ft.
West Central section: British American Brown 2, LSD 2, 24-19-3w5, T.D. 8,395 ft., Madison 7,936 ft., finishing tests for allowable.
Atlas Royalties 1, LSD 1, 24-19-3w5. T.D. 8,070 ft., Madison 7,588 ft., acidizing and testing.
British American-Brown 1, LSD 14, 13-19-3w5, below 8,435 ft., Madison 8,178 ft.

**New Tests Starting**

North Turner Valley: Royalite Oil 60, LSD 5, 14-20-3w5, spudded and below 615 ft.
West Central section: Drillers & Producers 2, LSD 12, 7-19-2w5, spudded and below 151 ft.
South West Petroleum 6, LSD 5, 8-19-2w5, location.

**Outside Field**

Clearwater: Clear Oils 1, LSD 8, 2-35-10w5, T.D. 3,007 ft., testing.
Lethbridge: Lethbridge Petroleums 1, LSD 12, 11-8-22w4, T.D. 4,152 ft., Madison 4,144 ft., acidized with 250 gal., blew in while swabbing with good gas pressure and no water. Well blowing by heads up to 150 bbl. with about 2,000 ft. of dark green crude, 32 to 36 gravity, in 4½-in. hole. Acidizing and testing, with commercial well indicated.
Blood Indian Reserve: Northwest-Treaty 1, LSD 4, 17-8-23w4, below 5,188 ft.
Twin River: Western Drilling 1, LSD 16, 3-2-20w4, below 2,000 ft.
Keho Lake: Keho Dome Oils 1, LSD 3, 18-11-22w4, spudding.
Steveville: Standard of British Columbia 3 Princess, LSD 5, 13-20-12w4, T.D. 3,200 ft., Madison, rated 65-bbl. producer, shows increasing water intrusion and may be abandoned.
Standard 2 Princess, LSD 3, 13-20-12w4, originally rated 520 bbl. daily, retesting, appears to be gas well.
Standard 1 Rainy Hills, LSD 1, 23-18-11w4, T.D. 3,320 ft., hole dry, abandoned.
Anaconda-Patricia 1, LSD 9, 31-20-12w4, below 2,625 ft., lime expected 2,780 ft.
Vermilion: Western-Battleview 2, LSD 9, 30-50-5w4, T.D. 1,825 ft., testing.
Western Battleview 3, 29-48-5w4, location.
Franco Oils 3 Hamer, LSD 8, 19-50-6w4, derrick.

### Consort Area Survey

Prairie States Core Drilling Co. of Wichita, Kans., is making a geological survey of structures in Alberta between Consort and Sedalia for interests associated with the McColl-Frontenac Oil Co. The area under survey is in eastern Alberta, north and a little east of the Steveville-Princess field.

**British Columbia Drilling**

Peace River block: Provincial Government 1, Commotion Creek, T.D. 5,200 ft., preparing to deepen after sidetracking lost tools, production expected 6,500 ft.

**Saskatchewan Drilling**

Little Pine: Little Pine 1, NW¼ 29-46-20w3, below 940 ft., carrying 8-in. casing.

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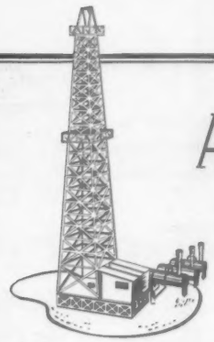

# Among the Drilling

C. T. McLAUGHLIN, of Midland, Tex., is moving rotary to drill a 7,250-ft. Fisher County wildcat test on a 12,000-acre block held by Shell Oil Co. The wildcat will be 1 J. H. Vaughn, about 18 miles northwest of Sweetwater, Tex. Location is 467 ft. from the north and 1,787 ft. from the west lines of Section 205-3, H.& T.C. Survey.

GIBSON-O'DONOHOE Drilling Co. has been contracted to drill a 5,000-ft. wildcat test in Wilbarger County, Texas. Contract was let by F. H. E. Oil Co. for 1-A Allison, Section 54-12, H.&T.C. Survey. The test is 5 miles northeast of Vernon, Tex.

NICKLOS Drilling Co., Houston, Tex., is moving a rotary to the Pine Prairie dome, Evangeline Parish, Louisiana, for E. J. Nicklos 1 Reed, about 1,200 ft. from Stanolind 1 Ardoin, recently completed to extend production to the south. Three operations are reported in the Ville Platte field for Continental Oil Co., while another is located at the Horseshoe Bayou field for Texas Co.

HELMERICH & PAYNE, Inc., Tulsa contracting firm, is rigging up to drill Pure Oil Co. 1 George Fisher, SW Section 46-49, T.P. Survey, Loving County, Texas. The wildcat is contracted to 6,000 ft. to test the Delaware formation. It is 10 miles northwest of a 5,000-ft. failure drilled 10 years ago by the same company.

ED DeARMAN, Tyler, Tex., contractor, is moving in material to drill Hickok & Reynolds 1 J. W. Bush. The wildcat is located 467 ft. out of the SW corner of a 20-acre tract in the Pleasant Valley Survey, Wood County, Texas.

TRINITY Drilling Co. will begin work before August 1 on 1 Dan Auld. The 5,200-ft. wildcat is in the N½ of SW Section O, Block E, E.L. Survey, about 1 mile east of the Terry-Lynn county line in Terry County, Texas. The test is on a 23,000-acre ranch.

GILGER Drilling Co., Inc., has been organized by C. C. Gilger and offices have been opened in Houston, Tex.

SAWYER Drilling Co., Houston, Tex., was preparing to retest Sinclair Prairie 1 H. R. Carlson, a wildcat in the El Campo area, Wharton County, Texas. Total depth of the hole is 8,020 ft., and on a drill-stem test through perforated casing at 7,535-40 ft. salt water was recovered and working pressure built up to 75 lb.

ALLEN & MORRIS, San Antonio, Tex., extended the East Premont field, Jim Wells County, Texas, 1 mile west and opened a new sand for the field with completion of Transwestern 2 Dunlap. Drilling was started in the East White Point field, Nueces County, Texas, for W. R. R. Oil Co., while in the Chapman ranch area, Nueces County, drilling continues at Seaboard 10 Chapman, 1,300 ft. from the company's 9 Chapman, which was recently completed to open an important extension to the field. Four other operations are reported in Anderson, Calhoun, Brooks and San Patricio counties, Texas, for Tide Water Associated Oil Co., Coronado Corp., Standard Oil Co. of Texas, and the Pantex Oil Co.

TRINITY Drilling Co., Dallas, Tex., is moving in a rotary to Lynn County, Texas, for a 6,200-ft. wildcat to be drilled for Dan Auld. The well is in Section O, Block E, of the E.L.& R.R. Survey.

FALCON-SEABOARD Drilling Co., Houston, Tex., is running 7-in. casing in W. R. Davis 1 Arizona-Texas Citrus Co., a wildcat located in the McAllen area, Hidalgo County, Texas. Total depth of the hole is 8,514 ft.

O'NEAL Drilling Co., Midland, Tex., continues testing on 1 Wright, 3 miles north of the Duggan field in Cochran County, Texas. The contracting firm is now installing tubing and flow valves after a swabbing test resulted in production of 60 bbl. in 8 hours with 20 per cent water. Hole is bottomed at 4,983 ft.

USCAN Drilling Co., Oklahoma City, Okla., has taken over the test well and block of Ross Sport et al near Tahoka, Lynn County, Texas, and assumed obligation to drill the hole to 5,500 ft. Uscan 1 J. E. Rice, C NW NW Section 18, Block D-11, E.T. Survey, is on a torsion-balance prospect worked by Mark Wheelan.

H. H. HOWELL, Alice, Tex., is rigging up in Duval County, Texas, for 1 E. A. Parr, a Pettus sand test about 1 mile east of the Thomas Lockhart field in the G.H.&R.R. Survey.

HELMERICH & PAYNE, Inc., Tulsa, have contracted to drill a Woodbine sand test 3 miles northeast of Pine Mills in Wood County, Texas. The well is to be drilled for Fred Strang et al of Dallas, Tex. The location is on the S. L. Old farm in the J. R. Smith Survey.

MOHAWK Drilling Co. has been awarded contract for drilling a new wildcat in Gibson County, Indiana, in SW NW NE 24-2s-10w near Francisco. The test is the Warren & Bradshaw 1 Reavis, and will test the McClosky expected at about 1,800 to 2,000 ft. Location is at the edge of an abandoned shallow pool, on a farmout from the Carter Oil Co.

OSAGE Drilling Co., Oklahoma City, Okla., at a wildcat being jointly drilled with Anderson-Prichard Oil Corp. in Terry County, West Texas, is drilling below 4,877 ft. The test is

*Olson Drilling Co. crew on a well in Caddo County, Oklahoma: F. B. McGuire, J. P. Martin, C. L. Barrett, geologist and tool pusher, J. E. Ferguson, and R. B. Pearce*

# Contractors

their 1 Christmann in Section 49, Block T, D.&W. Survey, 3½ miles southeast of Brownfield. The wildcat showed favorable structural position last week in topping the solid lime at 4,510 ft., which correlated 102 ft. higher than the nearest test 6½ miles to the east and south. It is expected that the well will be standardized at about 5,000 ft. after casing has been run.

M. J. DELANEY Drilling Co., Dallas, Tex., last week extended the Avoca field of Jones County, West Central Texas, about ½ mile to the northwest upon completion of its 1 O. L. SHORT. The producer tested from 20 to 25 bbl. hourly through ½-in. choke, producing from the Palo Pinto lime. Delaney is scheduled to start offsets on the south and east.

HAWKINS & HOWELL, drilling contractors of Longview, Tex., at last reports were cutting pipe at 6,100 ft. in the Leake County, Mississippi, wildcat being drilled for Sinclair-Wyoming Oil Co. Located in NW SE NW 26-9n-6e, the test has been drilled to 7,616 ft. in the Lower Cretaceous after topping the Tuscaloosa at 5,435 ft.

MID-UNION Drilling Co., Oklahoma City, Okla., is drilling Magnolia Petroleum Co. 1 Heller, SE SE SE 35-10-3, on the edge of the Tecumseh Lake pool in Pottawatomie County, Oklahoma. The well was drilling below 2,500 ft. at week's end.

LLOYD NOBLE, Ardmore, Okla., was reported to have the contract for a 12,000-ft. test to be drilled by Amerada Petroleum Co. in Caddo County, north of Fort Cobb, Okla. The well is on a large block of Indian lands assembled recently for a test of a geophysical structure mapped in the Anadarko basin.

MANNING & MARTIN, Denver, Colo., has been awarded contract and is preparing to spud Bison Basin Oil Co. 1 Valentine Kirk in the Bison Basin of Wyoming. Location of the test is C NW SW 17-27n-95w. The wildcat will be drilled with rotary and will test the Sundance and Tensleep sands of the Bison gas structure.

ROCKY MOUNTAIN Drilling Co., Los Angeles, Calif., is shut down with a fishing job at its deep test in North Baxter Basin, Wyoming. The wildcat is its 1 State, in SW SW SW 36-20n-104w, on the northwest flank of the structure. Hole is bottomed in the Tensleep at 6,447 ft.

THOMPSON Drilling Co., Illinois drilling contractor, may have added Saline County to the list of Illinois producing areas as its wildcat 2½ miles northwest of Potter showed for a small commercial well. The test, its No. 1 Reich in NE SW NE 8-8s-7e, swabbed 5 bbl. of fluid in 12 hours, of which 20 per cent was fresh water, after acidizing with 1,000 gal. Production is from the McClosky at about 2,990 ft.

*These men, employed by Sultana Drilling Co., Shreveport, La., had a hand in completing the H. R. Scivally, trustee, 1 Louisiana Delta, southern La Salle Parish, for discovery of the Walters field recently. They are: (kneeling) H. L. Jones, derrickman; Tommy Crossland, driller; (standing) L. B. Laney, floorman; A. L. Hinton, floorman; V. R. Lay, tool pusher; W. W. Winger, floorman; Lee Griffin, driller; W. P. Birmingham, derrickman; Ray Carey, floorman. Sultana is drilling an offset test to the Walters discovery for Carter Oil Co., and has two rigs active in South Arkansas, for Carter Oil Co. at McKamie and Arkansas Fuel Oil Co. in Dorcheat*


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# Sharon Ridge and Emma Fields Extended by Good Wells

By R. MARNE SANFORD

MIDLAND, Tex., July 21.—A ½-mile west extension to Scurry County's Sharon Ridge pool has been assured by L. L. Lookabaugh and Ted Schroeder, Dallas operators, at 1 Ella Richter, Section 145, Block 97, H.&T.C. Survey. The outpost was given a 1,130-qt. shot at 2,297-2,531 ft., after which it flowed oil over the mast of the drilling rig. At the end of the week operators were cleaning out.

The Emma pool of southwestern Andrews County has been given a definite ½-mile southeast extension. Flowing at the rate of 1,408 bbl. of oil daily, natural,

## SUMMARY OF COMPLETIONS

***Northern West Texas***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil: Slaughter | 13 | 12,997 | 65,335 |
| Wasson | 8 | 5,928 | 41,742 |
| Other fields | 5 | 1,726 | 19,301 |
| Dry: Wildcats | 3 | ..... | 19,757 |
| Total | 29 | ..... | 146,135 |

***Southern West Texas***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil: Abell | 4 | 4,512 | 20,917 |
| Jordan | 2 | 1,382 | 7,330 |
| Keystone | 2 | 750 | 6,696 |
| North Cowden | 2 | 2,006 | 8,475 |
| Other fields | 16 | 15,406 | 51,087 |
| Dry: Fields | 2 | ..... | 5,711 |
| Total | 28 | ..... | 100,216 |

***Texas Panhandle***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells | 12 | 1,862 | 37,053 |
| Gas wells | 1 | *215 | 3,060 |
| Total | 13 | ..... | 40,113 |

***Southeast New Mexico***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 7 | 961 | 18,522 |
| Dry holes: Wildcats | 1 | ..... | 1,591 |
| Total | 8 | ..... | 20,113 |

*Million cu. ft.

the Adams & Bradley 1-A University opened new territory southeast of the pool for exploration. The well is located in the northwest corner of Section 43, Block 9, University Land Survey on a farmout acreage obtained from the Skelly Oil Co. Production is from the 4,275-ft. level.

### Lynn County Gets Another Wildcat

Definite location has been staked for a scheduled 5,200-ft. wildcat in northwest Lynn County. The test will be drilled on the 23,000-acre Green & Lumsden ranch as the Trinity Drilling Co. 1 Dan Auld, 660 ft. from the south and east lines of the N½ of the SW¼ of Section 0, Block E, E.L.&R. Survey. The site is about 1 mile east of the Lynn-Terry county line.

No. 1 Dan Auld is the second wildcat active in the county at the present time. Two miles northwest of New Home, in the north central part of the county, Uscan Drilling Co. of Oklahoma City, has taken over the Ross Sport 1 J. E. Rice, Section 18, Block D-11, E.L. Survey. The Uscan company has agreed to carry the test to contract depth, which is 5,500 ft., unless oil, gas or sulfur water is encountered before that depth is reached.

The wildcat is being drilled on a well defined structure, detailed by torsion balance.

The only other wildcat staked in this district during the week was in Mitchell County, where Humble Oil & Refining Co. will drill 1 I. L. Ellwood, 1,980 ft. from the northeast and southeast lines of Section 49, Block 16, S.P. Survey. The wildcat is contracted to 8,000 ft. unless commercial production, water in the Ordovician or granite is encountered at lesser depth. Humble's block surrounding the test comprises some 40,000 acres.

### Seminole and Bennett-Wasson Given Small Extensions

The Seminole field of central Gaines County appears to be in line for two short extensions, both by Amerada Petroleum Co. No. 5 Mary Coffey, Section 252, on the southwest edge of the area, is cleaning out after a nitro shot in the lime section. The test is bottomed at 5,264 ft.

On the southeast edge of the pool, operators are cleaning out at 4 Mrs. Austin, Section 194, following a nitro shot at a total depth of 5,245 ft.

Extension of the Bennett sector of the Wasson field has been assured with Plymouth Oil Co. 3-A Bennett, SE¼ of Section 632, flowing at the rate of 64 bbl. of oil in 3 hours from lime at 5,197 to 5,305 ft. The outpost was originally scheduled to 6,500 ft. to test the lower Permian, which recently opened a new deep pay level in the Wasson field, but will probably be completed as a ¼-mile northwest extension well.

### NORTHERN WEST TEXAS COMPLETIONS

(24-hr. ratings based on last 3 hr. of 6-hr. gages)

**Wildcats**

Andrews County: Magnolia 1 Ralph, NE cor. Sec. 20, Blk. 39-A, P.S.L. Sur., dry at 6,434 ft.
Phillips 1 Univ.-Andrews, NW NE Sec. 32, Blk. 10, University Lands Sur., dry at 8,368 ft.
T. P. Coal and Seaboard 1-C Midland farms, 660 ft. from S and E lines Sec. 8, Blk. 41, G.M.M.B.&A. Sur., dry at 4,955 ft.

**Fields**

Cedar Lake, Gaines County: Stanolind 4 Raynor, 800 bbl., 556-qt. shot 4,604-4,742 ft.
Dockery-Robbins, Mitchell County: N. V. Hilburn 1 Jackson, 348 bbl. plus 4 per cent water, pumping after 600-qt. shot, 1,647-1,750 ft.
Means, Andrews County: Humble 86 Means, 92 bbl., 4,000 gal. acid, 4,529-34 ft.
Seminole, Gaines County Magnolia and Atlantic 12-217 H. & J., 303 bbl., ½-in. choke, 2,000 gal. acid, 5,256-5,327 ft.
Slaughter, Cochran County: Atlantic 12 Boyd, 942 bbl., 2-in. casing outlet, 10,000 gal. acid, 4,940-5,066 ft.
Atlantic 16 Boyd, 1,176 bbl., 2-in. casing outlet, 10,000 gal. acid, 4,960-5,056 ft.
Devonian Oil 4-C Duggan, 403 bbl., 2½-in. casing outlet, 10,500 gal. acid, 5,037-76 ft.
Devonian Oil 1-A Igoe & Smith, 883 bbl., 11,700 gal. acid, 4,951-5,000 ft.
Honolulu Oil 5-A Mallett, 844 bbl., 9,000 gal. acid, 5,037-65 ft.
George P. Livermore 5 Boyd, 1,244 bbl., 13,000 gal. acid, 5,022-61 ft.
Milhoan 2 Griffin-Duggan, 822 bbl., 10,500 gal. acid, 4,918-4,987 ft.
Slaughter, Hockley County: Awoeb Oil 5-A Mid-Seale, 465 bbl., 2-in. casing outlet, 9,000 gal. acid, 4,900-99 ft.
H. A. Hedberg 1 Slaughter, 1,018 bbl., 10,000 gal. acid, 4,905-4,995 ft.
S. W. Richardson 4-C Slaughter, 1,461 bbl., 10,000 gal. acid, 4,900-95 ft.
Texas 4-E Mallett, 1,328 bbl., 10,000 gal. acid, 4,960-5,030 ft.
Texas 17 Slaughter, 1,419 bbl., 10,000 gal. acid, 4,970-5,000 ft.
Texas 19 Slaughter, 969 bbl., 10,000 gal. acid, 4,960-5,005 ft.
Snyder, Howard County: F. H. E. Oil 1-B Snyder, 183 bbl. oil plus 20 bbl. water, pumping, 2,000 gal. acid, 710-qt. shot, 2,640-2,935 ft., P.B. from 2,948 ft.
Wasson, Gaines County: Humble 7 Matthews, 508 bbl., ½-in. choke, 5,141-5,345 ft.
Ohio Oil 5 Averitt, 519 bbl., ½-in. choke, 3,000 gal. acid, 5,080-5,259 ft.
Wasson, Yoakum County: Aloco Oil 15-A Miller, 853 bbl., 10,000 gal. acid, 5,007-5,202 ft.
Argo Oil 4-B Comer, 1,504 bbl., 14,000 gal. acid, 4,910-5,170 ft.
Don Danvers 8-B Willard, 304 bbl., 68/64-in. choke, 8,000 gal. acid, 5,200-80 ft.
Denver Prod. 16-A Whittenberg, 1,601 bbl., 10,000 gal. acid, 4,830-5,174 ft.
Helmerich & Payne 2-B Dowell, 313 bbl., plus 2 per cent water, 8,000 gal. acid, 4,900-5,057 ft.
Mabee Oil & Gas 2 Abilene C. C., 326 bbl., pumping, 580-qt. shot, 5,080-5,255 ft.

### NORTHERN WEST TEXAS ACTIVE WILDCATS

Andrews County: Mascho Oil 1 Fisher, NE NE SE Sec. 16, Blk. 36-A, P.S.L. Sur., set 5½-in. casing at 4,349 ft., cleaning out cavings.
T. P. Coal & Oil and Seaboard 1-C Midland Farms, 660 ft. from S and E lines Sec. 8, Blk. 41, G.M.M. B.&A. Sur., 5,000-ft. test, prep. to abandon.
Borden County: Coffield & Guthrie 1 Conrad, SE NW Sec. 79, Blk. 20, Lavaca Navigation Co. Sur., 3,250-ft. test, drilling 2,305 ft.
Cochran County: Helmerich & Payne 1 Slaughter, 330 ft. from N and 290 ft. from W lines, Lbr. 67, Lge. 136, Armstrong C.S.L. Sur., 5,500-ft. test, drilling 4,625 ft.
O'Neal Drilling Co. 1 Wright, NE cor. Lbr. 12, Lge. 60, Martin C.S.L. Sur., 3 mi. N of Dean area, swabbed 60 bbl. fluid in 8 hr., 20 per cent basic sediment and sulfur water, perf. casing 4,835-80 ft., 5,000 gal. acid, prep. to install flow valves.
Gaines County: Amon G. Carter 4-D Wasson, NW SE Sec. 50, Blk. AX, P.S.L. Sur., set 5½-in. casing at 10,615 ft., T.D. 11,108 ft.
Garza County: Ed McAdams 1 K. Stoker, 1,320 ft. from S and E lines NE¼ Sec. 942, Blk. 97, H.&T.C. Sur., 3,500-ft. test, drilling 1,690 ft.
Lynn County: Uscan Drilling Co. (formerly Ross Sport) 1 J. E. Rice, 660 ft. from N and W lines Sec. 18, Blk. 11, E.L. Sur., 5,500-ft. test, drilling 2,711 ft.
Mitchell County: G. R. Anderson 1 Simpson, 2,310 ft. from S and 330 ft. from E lines Sec. 65, Blk. 97, H.&T.C. Sur., drilling 850 ft.
Terry County: Anderson & Prichard and Osage 1 Frances Christman, 660 ft. from W and S lines Sec. 49, Blk. T, D.&W. Sur., 5,5500-ft. test, drilling 4,468 ft.
Yoakum County: Dr. Sam Dunn 1 Moore, Sec. 486, drilling 5,467 ft.
Shell 1 M. L. Hammer, 330 ft. from W and S lines Sec. 490, Blk. D, J.H. Gibson Sur., drilling 5,084 ft.

## SOUTHERN WEST TEXAS

With the exception of one wildcat staked in Crane County, new activity in the southern basin area this week was restricted to Pecos County. Operators were busiest in the Abell pool, the new Conry field and in scattered wildcatting areas.

One mile north of production in the Abell pool the outpost of Stanolind Oil & Gas Co. and Superior Oil Co. was recovering oil showings from the Permian lime. No. 1 Thrapp-Walker, Section 23, Block 9, H.& G.N. Survey, on a 30-minute drill-stem test taken from 3,190 to 3,232 ft., recovered 170 ft. of oil and 30 ft. of oil-cut mud. Operators are continuing to test.

Pecos County's newest discovery area, the Conry-Davis section, 4 miles east of the deep Abell field, will soon have a third test. Stanolind Oil & Gas Co. has staked an east offset to the discovery well as 2 Conry-Davis. Location is 648 ft. from the south and 672 ft. from the east lines of Section 31, Block 9, H.&G.N. Survey.

The discovery well, Stanolind 1 Conry-Davis, first reported 2 weeks ago, was finally completed this week. The well flowed 346.07 bbl. of oil in 24 hours through ¼-in. tubing choke after acid treatment through gun perforations in 7-in. casing cemented at 4,830 ft. The oil tested 38.2 gravity at 90°. Pay was from the Permian lime at 3,710-3,810 ft., after the producer had been plugged back to 3,815 ft. from 5,745 ft., where granite had been encountered. The well is located in Section 31-9, H.&G.N. Survey.

The second test in the new area, Stanolind 1 Meyer-Logan, a north offset to 1 Conry-Davis, was completed for 109 bbl. of oil daily, flowing through ⅝-in. tubing choke. The well was acidized with 2,000 gal. at a total depth of 3,825 ft. No. 1 Meyer-Logan is also in Section 31.

One wildcat was staked in Pecos County this week. Gulf Oil Corp. and L. H. Wentz will drill a scheduled Ordovician test in the northeastern part of the county. The wildcat, 1 L. H. Miliar, spotted 467 ft. from the south and west lines of Section 39, Block 11, H.&G.N. Survey, is 7 miles northwest of the Taylor-Link pool and on a 7,200-acre block assembled by Mr. Wentz. The project is contracted to 6,000 ft.

### Crane County Wildcat Spudded

As the week closed Continental Oil Co. spudded 1 E. B. Jones to 124 ft. in redrock. The scheduled Ordovician wildcat is in the southwestern part of Crane County, Section 12, Block 3, H.&T.C. Survey. No. 1 E. B. Jones is 6½ miles south and a little west of production in the Sand Hills field.

### SOUTHERN WEST TEXAS COMPLETIONS

Abell, Pecos County: George Abell 1 Rixse, 83 bbl. plus 16 per cent salt water, ½-in. choke, 4,985-5,000 ft., P.B. from 5,043 ft.
Magnolia 2 Markey heirs, 1,393 bbl., ½-in. choke, 5,390-5,400 ft.
Stanolind 2 Crockett, 1,553 bbl., ½-in. choke, 5,080-5,157 ft.
Stanolind 1 Waber, 1,483 bbl., ½-in. choke, 5,281-4,317 ft.
Baker, Upton County: Trebol Oil 4 Rogers, 402 bbl., pumping, 1,000 gal. acid, 2,640-96 ft.
Conry, Pecos County: Stanolind 1 Conry-Davis, 346 bbl., ¼-in. choke, gas volume 1,041,000 cu. ft. daily, 2,000 gal. acid, 3,710-3,815 ft., P.B. from granite at 5,745 ft., new field for Pecos County.
Estes, Ward County: Gulf 147 Estes, 1,326 bbl., 750-qt. shot 2,448-2,668 ft., T.D. 2,691 ft.
Goldsmith, Ector County: Gulf 361 Goldsmith, 517 bbl., 75-qt. shot, 4,168-98 ft., T.D. 4,203 ft.
Halley, Winkler County: Bates & Reading 8 McCabe, 280 bbl., 1-in. choke, 450-qt. shot, 2,810-3,005 ft.
Hendricks, Winkler County: Stanolind & Westbrook,

2-T-88-G Hendricks, 299 bbl., ⅜-in. choke, 370-qt. shot, 2,870-3,000 ft.
Johnson, Ector County: Atlantic Refg. 3-D Johnson, 640 bbl., ½-in. choke, 460-qt. shot, 4,120-4,240 ft.
Jordan, Ector County: Parker Drlg. 1 G. L. Pace, 858 bbl., ½-in. choke, 1,110-qt. shot, 3,400-3,695 ft.
Snowden & McSweeney 8 University, 524 bbl., 1,500 gal. acid, 3,622-35 ft.
Keystone, Winkler County: Ralph Lowe 7 Campbell, 233 bbl., 500-qt. shot, 2,178-3,320 ft., T.D. 3,326 ft.
Standard Oil of Texas 14-12 Baird, 517 bbl., 300-qt. shot, 3,250-3,370 ft.
McCamey, Upton County: T. P. Coal & Oil 5 Eddleman, 415 bbl., pumping, 900-qt. shot, 2,942-3,132 ft.
McElroy, Crane County: Gulf 247 McElroy, 46 bbl., pumping, 872-qt. shot, 2,805-3,024 ft.
Noelke, Crockett County: M. & M. 1-E Noelke, 132 bbl. in 1 hr., natural, 1,200-25 ft.
North Cowden, Ector County: Lee Drlg. 2 T. P. Land Trust, 201 bbl., ⅛-in. choke, 400-qt. shot, 4,065-4,165 ft.
Trinity Drlg. 9 Henderson, 1,805 bbl., 520-qt. shot. 4,110-4,310 ft.
O'Brien, Ward County: Gulf 175 O'Brien, 88 bbl., pumping, 350-qt. shot, 2,602-94 ft.
Payton, Ward County: Jameson & Pollard 2-B T.C.I., 403 bbl., ¾-in. choke, 1,900-09 ft.
Davis & White 2 Fromme, dry at 1,940 ft.
Sand Hills, Crane County: American Liberty 12 Tubb, 10,327 bbl., plus 2.8 per cent water, flowing through tubing and two 2-in. casing outlets, 5,000 gal. acid, 5,733-61 ft.
Sealy, Ward County: Magnolia 9-41 Sealy, 97 bbl., 10/64-in. choke, perf. casing 2,930-35 ft., 100 gal. acid.
Waddell, Crane County: Gulf 41 Waddell, dry at 3,771 ft.
White & Baker, Pecos County: Cooper & McDermott 2 White & Baker, 56 bbl., ⅛-in. choke, 2,125-64 ft.
World, Crockett County: Armer & Armer 12-A Powell, 142 bbl., pumping, 500 gal. acid, 2,660-63 ft.

### SOUTHERN WEST TEXAS ACTIVE WILDCATS

Brewster County: Chester Dewey 1 Decie, 660 ft. from N and 1,980 ft. from S lines Sec. 45, Blk. 4, G.C. & S.F. Sur., 3,000-ft. test, drilling 135 ft.
Crane County: Gulf Oil 1-B Tubb, 660 ft. from W and S lines Sec. 28, Blk. B-27, P.S.L. Sur., rigging up rotary.
Crockett County: Bolsa-Chico Oil 1 Bouscaren, 330 ft. from E and 624 ft. from S lines Sec. 57, Blk. GG, T.C. Sur., testing at 1,281 ft.
R. H. Henderson 1 Couch, 467 ft. from N and 2,173 ft. from E lines Sec. 37, Blk. GG, H.E.&W.T. Sur., drilling 902 ft.
Forest Dev. 1 Shannon, 467 ft. from W and S lines Lot 20, Lge. 2, Archer Co. Sch. Lds. Sur., 2,600-ft. test, moving in material.
J. S. Pittman 1 O. W. Parker, 467 ft. from W and S lines of Sec. 28, Blk. HH, G.C.&S.F. Sur., location.
Ector County: Forest Dev. 1-C Edwards, SE SE SW Sec. 20, Blk. 43, Twp. 3s, T.&P. Sur., P.B. to 4,320 ft., shut in, T.D. 4,502 ft.
Loving County: Pinal Dome Oil 1 Michigan Oil fee, NW SW Sec. 15, Blk. 26-C, P.S.L. Sur., 5,300-ft. test, drilling 5,095 ft.
Pecos County: Anderson & Prichard 1 Boren, 1,979 ft. from S and 660 ft. from E lines, Sec. 4, L. Merchant Sur., drilling 1,743 ft.
Cremin & Boren 1 Bowen, 2,310 ft. from NW and 1,650 ft. from NE lines Sec. 60, Blk. 10, H.&G.N. Sur., 2,100-ft. test, running 8¼-in. casing to 839 ft.
A. Hargrove 1 Univ.-Continental, NE cor. Sec. 4, Blk. 7, University Sur., P.B. to 1,500 ft., T.D. 1,746 ft.
Phillips 2 Nutt, 1,980 ft. from W and S lines Sec. 17, Blk. 125, T.&St.L. Sur., 2,500-ft. test, drilling 1,680 ft.
Redmond, Greene & Davis 1 Iowa Trust, E½ W¼ Sec. 29, Blk. 10, H.&G.N. Sur., drilling 5,721 ft.
Reagan County: Amerada 1-RA University, 1,980 ft. from N and 600 ft. from E lines Sec. 3, Blk. 48, University Sur., drilling 8,607 ft.
Upton County: Plymouth Oil 1 Alford, C Sec. 50, Blk. 12, P. B. Scott Sur., drilling 5,500 ft.
Ward County: J. E. Fitzpatrick 1 T. B. Pruitt, SW SW Sec. 23, Blk. 1, W.&N.W. Sur., fishing tools at 1,510 ft.
Shell Oil 1 Sealy-Smith, 2,310 ft. from S and 330 ft. from E lines Sec. 38, Blk. A, G.M.M.B.&A. Sur., Ordovician test, 16½-in. 90 ft., T.D. 117 ft.
Winkler County: Magnolia 20 States-Walton, NW cor. Sec. 4, Blk. 3-B, P.S.L. Sur., drilling 7,066 ft.
Sam Weiner 2 Halley, NW NE Sec. 7, Blk. 11-B, P.S.L. Sur., T.D. 3,023 ft., prep. to complete as gas well.

## TEXAS PANHANDLE

AMARILLO, Tex., July 21.—Recovering from the slump of the previous week, the Panhandle field this week announced the location of 24 new tests and the completion of 13 wells. This mark is still below the weekly average of the last few months but is above the average for the field.

Of the 13 wells completed, 12 were for oil production and 1 was for gas. The total potential of the 12 oil wells amounted to 1,862 bbl. The gas well was completed in Moore County and on official Railroad Commission test gaged 215,000,000 cu. ft. daily by the back-pressure method.

### TEXAXS PANHANDLE COMPLETIONS

(24-hr. pumping gages)

Gray County: Cities Service Oil 14 Cunningham, 64 bbl., 3,235-85 ft.
Magnolia Pet. 45 fee (277), 125 bbl., 440-qt. shot, 2,910-3,030 ft.
Skelly Oil 126 Schaffer, 107 bbl., 295-qt. shot, 3,227-81 ft.
Stanolind 11 Sullivan, 96 bbl., 3,240-70 ft.
Stanolind-Magnolia 10 Saunders, 289 bbl., 545-qt. shot, 2,940-3,124 ft.
Taylor Oil 4 Taylor B, 65 bbl., 700-qt. shot, 2,785-2,889 ft.
Hutchinson County: Cree & Hoover 9 Halle, 196 bbl., 2,977-3,055 ft.
Phillips Pet. 73 Cockrell Ranch, 193 bbl., 400-qt. shot, 2,954-3,054 ft.
Phillips Pet. 31 Perkins, 141 bbl., 360-qt. shot, 2,815-96 ft.
Shell Oil 23 Hughey B, 305 bbl., 160-qt. shot, 3,020-77 ft.
Stanolind 10 Lewis A, 123 bbl., 500-qt. shot, 2,885-2,983 ft.
Stanolind 25 Terry, 158 bbl., 300-qt. shot, 2,985-3,009 ft.
Moore County: Magnolia 7 Britain, 215,000,000 cu. ft. gas daily, 5,000 gal. acid, 2,990-3,049 ft., T.D. 3,060 ft.

### SOUTHEAST NEW MEXICO COMPLETIONS

**Wildcats**

Eddy County: Mann & McNelly 1 Riggs, SE NE 7-20-30, dry at 1,591 ft.
Friess, Stampfli & Martin 1 Friess, NE SW 19-17-31, abandoned location.

**Fields**

Arrowhead, Lea County: Gulf 10-A Ramsey, NE SW 35-21-36, 120 bbl. at 3,880 ft.
Ohio 23 State-McDonald, SW SE 13-22-36, 190 bbl. at 3,475 ft.
Grayburg-Jackson, Eddy County: Premier 6-B Beeson, NW NW 27-17-29, 245 bbl. at 3,234 ft.
Leonard, Eddy County: Elder 3 Root, NW NW 12-17-29, 35 bbl. at 2,752 ft.
Western Prod. 3-C Keely, NE NW 13-17-29, 41 bbl. at 2,578 ft.
Red Lakes, Eddy County: Roberts 2 State, NW SW 19-17-28, 50 bbl. at 508 ft.
Loco Hills, Eddy County: Etz 6 State, NW SE 16-17-30, 180 bbl. at 2,095 ft.

**Drilling Report**

Chaves County: Martin 1 Stephens, NW NE 22-15-29, S.D. 3,680 ft.
Eddy County, Bedingfield & Walker 1 Seale, SE SE SE 10-20-27, drilling 1,880 ft.
Fair 1 Falkenberg, SW NW 24-18-26, S.D. 1,905 ft.
Manetas 1 Lane, SE NE 13-21-28, drilling 2,681 ft.
Sanders 1 DeTempie, SW SW 27-19-31, drilling 2,190 ft.
Lea County, Culbertson & Irwin 1 Wingfield, NE NW 4-19-33, drilling 450 ft.
Polyhar 1 Williams, NW SE 33-19-27, drilling 3,200 ft.

## Oklahoma Fields

*(Continued from Page 57)*

### WILDCAT DRILLING REPORT

**North and Central**

Creek County: Zephyr 1 Sinclair, SE SE NW 34-17-8, Wilcox 3,658 ft., no show, P.B. 2,862 ft., ripped in Bartlesville 2,843 ft., H.F.W., P.B. 2,733 ft., ripped Red Fork 2,696-99 ft. and 2,732-35 ft., P.B. to Prue, ripped 2,374-77 ft., 2,370-73 ft., 2,360-70 ft., 2,343-50 ft., 2,334-37 ft., ½ bailer oil an hr., shot 2,330-87 ft., cleaning out 75 ft. off bottom, 100 bbl. a day on pump.
Cole 1 Citizens Bank, NW NW SE 25-14-10, sand 1,885 ft., drilling 1,930 ft.
Deep Rock 1 Lewis Meadvis, SE NW SE 16-15-7, drilling 475 ft.
Charles Balph 1 Stan, SE SE SW 7-16-8, first report.
Garfield County: Gulf 1 Skilling, N½ NE NW 8-23-4w, Woodford 5,935 ft., Misener 5,977 ft., Viola 5,997 ft., Wilcox 6,064 ft., porous sand streaks, spotted stain 6,073-78 ft. and 6,084-89 ft., lower Simpson dolomite 6,101 ft., second Wilcox 6,153 ft., cored 6,164-66 ft., recovered hard tight sand, drilling 6,170 ft.
Grant County: Champlin 1-A Crouse, S½ SE SW 29-25-8w, drilling 2,556 ft.
Hughes County: Breen 1-A Cahill, E½ NE SW 2-6-8, sand 1,250 ft., H.F.W., 6-in. 1,281 ft., T.D. 1,287 ft.
Bailey 1 N. Williams, SW SW NE 14-9-10, T.D. 1,460 ft.
Kay County: Zephyr 1 Gingerich, SW SW SE 29-28-1w, Pawhuska 1,675 ft., Tonkawa lime 2,320 ft., Tonkawa sand 2,376 ft., drilling 2,675 ft.
Lincoln County: Allied Materials 1 Hicks, NW NW NW 25-13-6, Mississippian Caney 3,720 ft., Mayes 3,830 ft., Woodford 4,045 ft., Hunton 4,078 ft., Sylvan 4,121 ft., Viola 4,219 ft., some show oil, dense 4,247 ft., D.S. test 4,080-4,107 ft., open 10 min., est. 1,000,000 cu. ft. gas, D.S. test 4,222-65 ft., mud, cored lime and sandy dolomite 4,265-73 ft., drilling ahead.
Dunnett 1 Luckenbill, SW SE SE 29-15-5, Hogshooter 2,465 ft., Checkerboard 2,760 ft., Oswego 3,475 ft., Prue 3,504 ft., show oil, 7-in. 3,502 ft., est. 60 to 65 bbl. a day, T.D. 3,548 ft., filled up 1,200 ft. oil in hole natural, shot 3,520-45 ft., cleaned out with 1,800 ft. oil in hole, deepened to 3,550 ft., water, P.B. 3,548 ft.
Dunnett 1 Brown, NW NW SW 17-15-4, drilling 2,065 ft.
Logan & Cooper 1 Ocstmann, SE NE SE 11-16-5, Checkerboard 2,510-35 ft., Cleveland 2,535 ft., drilling sand 2,570 ft.
Dunnett 1 Dollison, NW SE NW 33-15-5, 10-in. 65 ft.
Logan County: Olson 1 Paulk, N½ NE SE 33-18-3w Oswego 5,290 ft., drilling 5,305 ft.
Roy Deihl 1 Lesh, NE NE NE 19-16-1w, first report.
Muskogee County: Pine 1 Lacey & Steele, SE NE NW 24-13-17, drilling 2,035 ft.
Noble County: Elm Oil 1 Hicks, SE SE SW 36-23-2w, drilling 2,470 ft., to be tight hole.
J. M. Henry 1-A Schultz, NE SW NE 29-23-1w, S.D. 2,309 ft.
Okfuskee County: Walker & Sexton 1 Hilderbrandt, NW NE NE 19-10-11, lime 1,033-36 ft., some show gas, T.D. 1,108 ft.
Shelton 1 Armstrong, SE SE NW 3-11-10, old well S.I. Nov. 12, 1940, cleaning out to T.D. 3,394 ft., filled up 3,375 ft. of fluid, swabbed and flowed 25 bbl. in 6½ hr., swabbed and flowed 45 bbl. in 24 hr. through 2½-in. tubing with packer set at 3,019 ft., cleaning out tubing, 7-in. 3,308 ft. pumped 8 bbl. in 3 hr., pumped 25 bbl. in 6 hr.
Sam Vierson 1 Harper, NW NW NE 16-13-7, Sylvan 4,065 ft., Viola 4,151 ft., dense 4,179 ft., dolomite 4,186 ft., sandy dolomite 4,195 ft., first Wilcox 4,199 ft., cored hard white salty sand 4,203-10½ ft., electrical log, showed good saturation in Hunton and Dutcher, 5½-in. 4,100 ft., to test Hunton.
Shell 1 Palmer, SW NW SW 6-10-9, Booch 2,954-3,000 ft., show oil 2,954-84 ft., water sand 2,984-3,000 ft., Cromwell 3,355 ft., D.S. test 3,359-3,426 ft., open 27 min., gas in 9 min. gaged 200,000 cu. ft., 900 ft. mud, no oil, drilling 3,441 ft.
Wilcox 1 Moseley-Nevins, SE SE NW 4-13-7, first report.
Okmulgee County: Oklahoma Oil 1 Colbert, SE SE SE 26-11-13, first report.
Oklahoma County: Harper-Turner 1 Kunc, NW SW NW 33-14-2w, drilling 4,261 ft.
Osage County: Black Jack 1 Osage, NE NE SW 29-25-7, 8¼-in. 1,236 ft., lime 1,375-1,455 ft., drilling 1,460 ft.
Devonian 1-A Osage, SW SW NE 34-22-7, T.D. 805 ft., underreaming 12-in.
Swartz 3-A Osage, SW SW NE 16-23-9, 6-in. 1,589 ft., Oswego 1,798-1,873 ft., Bartlesville 2,156 ft., T.D. 2,170 ft., filled up 160 ft. oil, natural, to shoot.
Ohio-Osage 1 Osage, E½ E½ NW 32-22-9, 8-in. 667 ft., 6-in. 1,990 ft., Bartlesville 2,238 ft., T.D. 2,250 ft. in sand, 4,250,000 cu. ft. gas, S.D.
Herman Madvine 1 Osage, NW NW SW 14-22-10, sand 1,494-1,500 ft., sand 1,546-61 ft., lime 1,566-74 ft., pink lime 1,691-97 ft., Bartlesville 1,785-98 ft., sandy shale 1,802-06 ft., coal 1,815-19 ft., sand 1,820-28 ft., shale 1,828-41 ft., show oil 1,836-38 ft., sand 1,841-50 ft., sandy shale 1,850-70 ft., T.D. 1,891 ft., P.B. 1,807 ft., shot 1,792-1,807 ft.
Norbla 1 Osage, SW SW NE 9-26-5, lime 1,035-60 ft., sand 1,075-1,105 ft., H.F.W., sand 1,115-35 ft., 1,140-85 ft., sand 1,195-1,280 ft., 10-in. 1,316 ft., sand 1,372-95 ft., H.F.W., lime 1,400-15 ft., drilling 1,446 ft.


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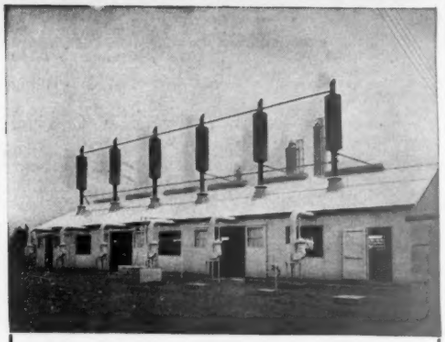

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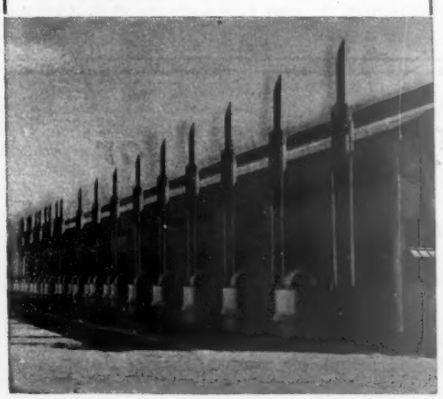

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Pawnee County: Sand Springs 1 Launer, SW SW SW 25-20-6, Mississippian chat 3,103-05 ft., T.D. 3,144 ft., swabbed 14 bbl. oil after being S.I. 6 days pulling 10-in., acid, testing.

Payne County: T. N. Berry 1 fee, NW NE SW 13-18-3, Prue 3,240 ft., Big lime 3,310 ft., Oswego 3,365-3,405 ft., show oil, Skinner 3,573 ft., pink lime 3,610 ft., Bartlesville 3,642 ft., cored shale and 1-ft. sand with slight show oil 4,068-84 ft., Wilcox 4,098-4,102 ft., D.S. test gas and spray oil.

Pontotoc County: Cason 1 Adcock, SE NW NE 21-4-6, T.D. 895 ft., 2 bailers water an hr., no show, S.D., may deepen.

Hughes-Thomas 1 Johnson, SW SW SE 26-4-5, drilling 750 ft.

Pottawatomie County: Stanolind-Amerada 1 Rowan, NE NW SW 20-9-4, Calvin 3,940 ft., Earlsboro 4,366 ft., no Caney, Mayes 4,500 ft., Woodford 4,575 ft., Misener 4,703 ft., some show oil, Hunton 4,706 ft., cored hard sand and shale 4,373-88 ft., no show, coring 4,710 ft.

Manahan 1 Brown, SE SE SE 21-10-3, Viola 5,375 ft., some show oil, dense 5,420 ft., dolomite 5,446 ft., first Wilcox 5,483 ft., cored 5,470-84 ft., and 5,484-95½ ft., no show, drilling 5,545 ft.

Lippert 1 Rosebush, NE SE SW 34-10-3, Woodford 5,005 ft., Hunton 5,130 ft., Viola 5,268 ft., dense 5,310 ft., dolomite 5,353 ft., first Wilcox 5,393 ft., cored 5,399-5,410 ft., S.D.

Meyers 1 Johnson, NE SE NE 34-10-3, cherty lime 4,708 ft., drilling 4,780 ft.

North American 1 Airhart, NE NE SW 5-9-4, Belle City 2,410 ft., drilling 3,700 ft.

Seminole County: Paul McIntyre 1 Honning, SW SW SE 2-9-7, brown lime 3,295 ft., Gilcrease 3,465 ft., Wapanucka 3,636 ft., Cromwell 3,642 ft., unconformity zone 3,600 ft., cored conglomerate 3,594-41 ft., some show oil 3,601-06 ft., cored lime and sand 3,641-47 ft., some show oil, electrical log, T.D. 3,647 ft., running 5½-in.

Mico 1 Kidd, NE SW SE 33-10-8, Cromwell 3,716 ft., T.D. 3,746 ft., 5½-in. 3,400 ft., top plug 3,422 ft., shot 3,385-3,429 ft., no show, S.I. 3 days, hole full fluid, tested mostly water, P.B. 3,424 ft., perf. 2,140-42 ft., show gas and lots of water, testing.

Moddy Drilling 1 Whitney, NE NE SE 30-7-7, first report.

Stanolind-Amerada 1 J. F. Buck, NW SE NW 11-10-7, first report.

## AVERAGE DAILY PRODUCTION

### LEADING OKLAHOMA FIELDS

| | July 19 | July 12 |
|---|---|---|
| Allen | 4,425 | 4,425 |
| Billings | 6,200 | 6,225 |
| Burbank | 8,125 | 8,150 |
| South Burbank | 7,350 | 7,400 |
| Balance Osage | 18,100 | 18,100 |
| Blackwell district | 3,550 | 3,550 |
| Bristow-Slick | 6,450 | 6,500 |
| Coyle | 3,850 | 3,900 |
| Crescent | 1,625 | 1,650 |
| East Cromwell | 1,925 | 1,975 |
| Cromwell | 2,800 | 2,825 |
| Cumberland | 6,700 | 6,700 |
| Cushing-Shamrock | 9,200 | 9,175 |
| Dill | 4,225 | 4,400 |
| Duncan | 3,550 | 3,575 |
| Edmond | 3,450 | 3,475 |
| Fish | 4,450 | 4,400 |
| Fitts | 11,650 | 11,950 |
| Jesse | 1,850 | 1,900 |
| Graham-Fox | 2,200 | 2,175 |
| Guthrie | 3,200 | 3,600 |
| Healdton | 8,650 | 8,700 |
| Hewitt | 12,250 | 11,500 |
| Keokuk | 2,725 | 2,725 |
| Konawa | 1,050 | 1,075 |
| Lucien | 5,825 | 5,850 |
| Moore | 900 | 950 |
| Northeastern counties | 17,100 | 17,275 |
| Oklahoma City | 92,200 | 83,400 |
| Olympic | 1,600 | 1,625 |
| Ramsey | 3,975 | 3,950 |
| Sasakwa | 1,175 | 1,150 |
| Sholem-Alechem | 2,700 | 2,675 |
| Stroud | 2,000 | 1,200 |
| Seminole district: | | |
| Bowlegs | 5,950 | 5,975 |
| Carr City | 2,200 | 2,200 |
| Dora | 1,175 | 1,175 |
| Earlsboro | 3,975 | 3,950 |
| East Earlsboro | 1,750 | 1,725 |
| South Earlsboro | 550 | 550 |
| Little River | 6,425 | 6,400 |
| East Little River | 875 | 875 |
| Mission | 1,300 | 1,275 |
| Seminole | 6,425 | 6,400 |
| East Seminole | 950 | 950 |
| Searight | 1,850 | 1,825 |
| Total Seminole | 33,425 | 33,300 |
| St. Louis-Pearson | 17,300 | 17,650 |
| Tatums-Tussy | 5,225 | 5,250 |
| Wewoka | 1,875 | 1,850 |
| Yale-Jennings | 3,350 | 3,350 |
| Total Oklahoma | 421,750 | 414,100 |

**Southwestern**

Atoka County: Campbell 1-A Rich, SE SW 2-1-12, first report.

Beckham County: H. C. McLaughlin, SW SW 25-8-25w, drilling anhydrite 1,354 ft.

Caddo County: Texas 2 Smith, SE NW 2-5-12w, D.S. test 3,388 ft. flowed 125 bbl. in 55 min. from Simpson bromide, blew out between 7-in. and 13⅜-in. casing from Hunton, est. 25,000,000 cu. ft. gas, gas killed, lost swedge and milling tools in hole at 2,218 ft., to set whipstock and drill from Hunton down to producing sand.

Olson 1 Ka-Way-Kla, SE NE NW 28-6-11w, drilling 4,868 ft. in red beds.

Choctaw County: Carter 1 Shull, SE SW NE 20-6s-18e, drilling 875 ft. in shale.

Cleveland County: Sinclair Prairie 1 Craig, NE NE SE 30-8-1w, Sylvan 7,160 ft., Viola 7,260 ft., Simpson 7,323 ft., drilling 7,441 ft.

Luther Mayer 1 McCommins, NW NE NE 15-10-1, Hunton 5,704 ft., cored 5,713-28 ft., D.S. test 5,710-28 ft., recovered 150 ft. oil-cut mud, drilling 6,000 ft.

Delaney 1 Bandy, NW SE SW 13-7-2w, drilling 4,285 ft.

Cotton County: Taylor & Davis 1 Schussler, SE SE NE 14-6s-14e, drilling 1,235 ft., shale.

Garvin County: Alma 1 Wringer, NW NW NW 2-3-3, drilling 1,560 ft.

Doley and Ramsey 1 McCrummem, E½ SE NW 24-4-1w, first report.

Jackson County: Kerbow & Britton 1 Moon, SE SW NE 31-1-19w, sandy shale, stain oil 2,321-52 ft., wash and lime 2,352-64 ft., broken wash 2,635-44 ft., broken lime and wash 2,644-96 ft., S.D.

Mutual 1 Caves, W½ NE NW 36-4-21w, show oil in wash 1,070-95 ft., S.D. 1,630 ft.

Rhinehart & Donovan 1 Petzold, SE SE NE 20-3-20w, first report.

Jefferson County: Ray M. Johnson 1 Hefner, SE SW NE 30-3s-4w, T.D. 200 ft., cleaning out.

B. L. Fain 1 Owens, NE SE 7-5s-8w, drilling 800 ft.

Johnston County: Baldwin & Reed 1 Davis, S½ SW NW 8-2s-8e, bromide 1,900 ft., drilling 2,285 ft.

Kiowa County: Mathews-Lewis 1 Brazell, NE NE NE NE 33-7-17w, conglomerate 580-810 ft., lime 884 ft., drilling 980 ft.

Kelly Wells 1-A Oster, SW NE NW 33-7-17w, drilling 993 ft., lime, show oil 775-77 ft.

Hughes 1 Dugger, NE SW SW 14-6-18w, drilling 900 ft. in conglomerate.

Badger & Grover 1 Clark, SW SW NE 19-7-16w, S.D. 902 ft.

Love County: Magnolia 1 Watson, SW SE NW 12-7s-2e, sand 3,553 ft., cored stained sand and green shale 3,555-70 ft., D.S. test with packer at 3,555 ft., open 30 min., recovered salt water, cored green shale and sand streaks 3,627-37 ft., sand 3,655-65 ft., light stain and odor, cored shaly sand with odor 3,665-75 ft., D.S. test at 3,660 ft., recovered drilling fluid, cored green shale 3,711-21 ft., top sand 3,740 ft., stain and odor, cored sand and shale with show black oil and gas 3,743-61 ft., D.S. test at 3,740 ft., recovered drilling mud, drilling 3,780 ft. in shale.

Batson 1 Walden, NE NW NW 34-6s-2e, T.D. 2,703 ft., 7-in. 2,169 ft., Viola 2,425-75 ft., perf. 1,741-53 ft., perf. 1,494-1,500 ft., squeezed 100 sacks, run tubing with packer at 2,150 ft., acid, swabbing 2 bbl. an hr.

Joe Baldwin 1 Hill, NW NW SE 26-8s-2e, drilling 3,765 ft. in shale.

Stephens County: Helmerich & Payne 1 Cryer, SE NE SW 33-2-5w, T.D. 6,795 ft., top fish 2,731 ft., milling up stuck drill pipe.

## Illinois Fields

*(Continued from Page 69)*

Benoist 2,931 ft., Renault 2,975 ft., Aux Vases sand 3,056 ft., Ste. Genevieve 3,094 ft., McClosky 3,184-96 ft., casing collapsed, junked hole.

Roland: Fisher Oil and Arrow Drlg. 5 Ellis, SE SW SE 11-7s-8e, pumped 182 bbl., natural, Waltersburg 2,159 ft., T.D. 2,175 ft.

Kingwood-Sinclair 2 McKenzie, SW NW SW 12-7s-8e, pumped 359 bbl. oil and 75 bbl. water from Benoist and Waltersburg, 30-qt. shot 2,734-43 ft., Benoist 2,730 ft., perf. 2,192-2,240 ft., Waltersburg 2,165 ft., T.D. 2,752 ft.

South Herald: Mabee Drlg. 1-A Knight, S½ NE SE SW 10-7s-9e, pumped 18 bbl., 20-qt. shot 2,266-76 ft., 90-qt. shot 2,267-72 ft., Tar Springs 2,259 ft., T.D. 2,276 ft.

Mabee Drlg. 1 Weas, N½ NE SE SW 10-7s-9e, dry at 2,304 ft., Palestine 2,008 ft., Menard 2,114 ft., Vienna 2,251 ft., Tar Springs 2,267-79 ft., 2,287-98 ft.

### ILLINOIS DRILLING REPORT

Bond County: K. Woolsey 1 Chester Sapp, NE NE SW 22-5n-4w, T.D. 640 ft., testing.

Schwarz 1 Studebaker, SE SE SW 21-6n-2w, coring 2,926 ft.

Christian County: W. Marlow 1 Howell, SE SE NE 26-15n-2w, drilling 1,825 ft.

Clinton County: A. W. Gearson 1 Bilkhart, SW NW NW 22-1n-5w, T.D. 3,217 ft., P.B. 1,290 ft., drilled out to 1,312 ft., water broke in, squeezed, waiting on cement.

Du Page County: I. C. R. Syndicate 1 Bartlett Village, SE NW NW 2-40n-9e, S.D. 1,010 ft.

Edgar County: Zink et al 1 Hunt, NE NE NE 14-12n-14w, T.D. 390 ft., to ream.

Edwards County: Nat. Pet. et al 1 Crackle heirs, NW NW SW 5-2s-14w, T.D. 3,150 ft., P.B. 2,872 ft., 80-qt. shot 2,854-66 ft., swabbed 60 bbl. oil and 20 bbl. water in 15 hr., testing.

Fayette County: J. T. Elmore 1 Keith, SE NE NW 18-6n-1w, drilling 822 ft.

Turner Drlg. 1 Williams, SW SW NW 6-6n-2e, drilling 1,714 ft.

H. R. Spires 1 Braasch, NE NE SW 1-5n-2e, fishing 1,695 ft.

Franklin County: Smokey & Eason 1 Moore, NE SW SW 14-6s-2e, base Pennsylvanian 1,910 ft., Menard 1,990 ft., Waltersburg sand 2,093 ft., Vienna 2,123 ft., Tar Springs 2,148 ft., drilling 2,490 ft.

J. A. Burhans 1 Viehl, E½ NE SW 12-5s-3e, rig.

Hamilton County: Kingwood et al 1 Johnson, NE SE NE 14-6s-5e, set 10-in. 71 ft., drilling 335 ft.

Henry County: O. Behrens 1 Patton, SE SE SW 1-17n-3e, S.D. 1,000 ft.

Jasper County: J. P. Gordon 1 Snyder, W½ SE NW 36-7n-10e, set 10-in. 70 ft., Glen Dean 2,286 ft., drilling 2,340 ft.

Lawrence County: Midwest Dev. 1 Mullens, NW NW SE 15-2n-12w, set 12½-in. 319 ft., water sand 650-55 ft., sand 1,110-37 ft., water sand 1,185-1,205 ft., drilling 1,260 ft.

Stocker & Kieffer 1 Rogers, NW SE SW 17-2n-12w, set 10-in. 1,240 ft., 8-in. 1,447 ft., drilling 1,450 ft.

W. Payne 1 H. Payne, NW SW NW 20-3n-11w, set 5½-in. 1,843 ft., drilling 1,935 ft.

Madison County: Alch & Carroll 1 Rinkel, SE NE NW 33-5n-6w, running 5½-in. 1,835 ft.

F. C. Kiskadden 1 G. A. Fischer, S½ SE SW NE 27-5n-8w, drilling 1,720 ft.

Marion County: Swan-King 1 Kotva heirs, S½ SW NW 36-4n-2e, Warsaw 2,670 ft., Border 2,770 ft., St. Louis 3,410 ft., Chattanooga 3,435 ft., Devonian 3,549 ft., T.D. 3,692 ft., P.B. 2,113 ft., waiting on cement, to test Benoist and Rosiclare.

Richland County: Texas 1 Shan, E½ SE NW 27-3n-9e, set 10-in. 125 ft., drilling 2,448 ft.

St. Clair County: Magnolia 1 M. Probst, SE SE SE

2-2s-9w, Trenton 1,364 ft., T.D. 1,450 ft., bailing water.

G. Morris 1-A V. Rasp, NW NW SW 32-2n-7w, set 6⅝-in. 1,583 ft., T.D. 1,588 ft., rigging up standard tools.

Shelby County: Oil, Inc. 1 Barkhurst, SW SW NE 7-10n-3e, T.D. 1,730 ft., drilling plug.

Wabash County: Joe Young 1-A Price, E½ NW NE SW 14-1n-12w, drilling 1,606 ft.

Wayne County: Texas 1 F. M. Draper, N½ NW SW 8-3s-6e, McClosky 3,352-60 ft., 3,398-3,403 ft., St. Louis 3,445 ft., show oil 3,449-54 ft., 7-in. 3,348 ft., T.D. 3,469 ft., drilling plug.

White County: Shaffer & Stole 1 Aud, SE NE SE 27-6s-9e, T.D. 2,678 ft., P.B. 2,668 ft., testing.

Ryan Oil 1 Stokes, NW NW SE 2s-4s-10e, spud.

## Appalachian Fields

*(Continued from Page 71)*

**Cabell County**

Barboursville district: Cumberland Gas Corp. 1 O. J. Jefferson, 119,000 cu. ft. gas, Big lime 1,311-1,478 ft., Big Injun 1,529-1,635 ft., Berea 2,106-20 ft., brown shale 2,800-3,164 ft., T.D. 3,174 ft., gas in Berea and brown shale.

McComas district: Meabon & Jones 1 Webster Myers, 146,000 cu. ft. gas, Big lime 1,529-1,628 ft., Big Injun 1,740-1,858 ft., Berea 2,357-65 ft., brown shale 3,078-3,414 ft., gas in Berea and brown shales, T.D. 3,419 ft.

**Calhoun County**

Sherman district: Yeak & Brown 1 Edith McDonald, 12 bbl., Injun sand, T.D. 1,973 ft.

**Clay County**

Pleasant district: Joe Rubin et al 1 Wetherell estate, 500,000 cu. ft. gas, Injun sand, T.D. 1,854 ft.

**Doddridge County**

West Union district: R. J. Braden Co. 1 Flora E. Martin, 25,000 cu. ft. gas and ⅛ bbl. oil, Gordon sand, T.D. 2,616 ft.

**Hancock County**

Grant district: R. J. Braden Co. 27 Hewitt heirs, 5 bbl., Berea, T.D. 918 ft.

**Kanawha County**

Cabin Creek district: Pure Oil Co. 1 Shonk Land Co., 28,992 cu. ft. gas, Big lime, T.D. 2,073 ft.

**Lincoln County**

Union district: Sweetland Land & Mineral Co. 2 fee, 160,000 cu. ft. gas, Big lime 1,576-1,750 ft., Big Injun 1,764-1,884 ft., Berea 2,272-92 ft., brown shale 3,000-3,593 ft., shot 4,200 lb. gelatin, gas from Berea and brown shale, T.D. 3,603 ft.

Sweetland L. & M. Co. 4 J. J. Smith, drilled deeper, started at 1,711 ft., Berea 2,200-18 ft., brown shale 3,235-3,522 ft., 60,000 cu. ft. gas after shot, T.D. 3,536 ft.

**Marion County**

Mannington district: Monroe & Laughlin 1 R. A. Moffett, drilled deeper, 15 bbl., Fourth sand, T.D. 3,060 ft.

South Penn Natural Gas Co. 4 John W. Phillips, former Gordon sand gas well, P.B. to Injun sand and will produce 2 bbl. a week.

**Marshall County**

Cameron district: Guy B. and A. G. Patterson 1 John A. Hicks, 50,000 cu. ft. gas, Gordon stray sand, T.D. 3,108 ft.

**Putnam County**

Curry district: Massey Oil & Gas Co. 1 Walter Johnson, 142,000 cu. ft. gas, Berea sand, T.D. 2,104 ft.

**Ritchie County**

Murphy district: D. A. Cronin 1 H. H. Hatfield, 17,000 cu. ft. gas, Big lime, drilled through Squaw sand, T.D. 1,952 ft., abandoned.

**Tyler County**

Ellsworth district: McIntyre-Wright-Edgar 2 John Eastham, 3 bbl., Keener, T.D. 2,100 ft.

**Upshur County**

Buckhanan district: Pittsburgh & West Virginia 7786 M. E. Higginbottom, 284,000 cu. ft. gas, Benson sand 4,631-54 ft., gas 4,634-40 ft., T.D. 4,469 ft.

Pittsburgh & West Virginia 7838 P. D. Brake, 51,000 cu. ft. gas, Benson sand 4,521-37 ft., gas 4,525-26 ft., T.D. 4,560 ft.

**Wayne County**

Union district: Hamilton Gas Co. 1 W. H. Chinn, 260,000 cu. ft. gas after acidizing Big lime and shooting brown shale, Big lime 1,139-1,311 ft., Big Injun 1,320-50 ft., Berea 1,927-29 ft., brown shale 2,524-2,909 ft., T.D. 2,934 ft.

**Wetzel County**

Grant district: Carnegie 5 Michael Barr, 280,000 cu. ft. gas, Big Injun 2,002 ft., gas 2,026-28 ft., T.D. 2,050 ft., R.P. 650 lb.

### ORISKANY GAS FIELDS

**Kanawha County**

Poca district: Columbian Carbon 1 L. D. Wickline, 539,000 cu. ft. gas before shot, Corniferous lime 4,892 ft., Oriskany 5,010 ft., lime break 5,018 ft., T.D. 5,033 ft.

South Penn 1 Ray-Salyers unit, 134,000 cu. ft. gas, Corniferous lime 4,861 ft., Oriskany 5,928 ft., gas 4,999-5,012 ft., 95 and 120-qt. shot, T.D. 5,053 ft.

South Penn 1 V. and W. F. Monk, 2,076,000 cu. ft. gas, Corniferous lime 4,753 ft., Oriskany 4,880-4,925 ft., gas 4,895-98 ft., T.D. 4,927 ft.

**Jackson County**

Ripley district: Godfrey L. Cabot 8 J. L. McLean, 2,147,000 cu. ft. gas, Maxton sand 1,847-1,958 ft., Big lime 2,138-2,224 ft., Berea 2,625-40 ft., Corniferous lime 5,153-5,253 ft., Oriskany 5,253-91 ft., T.D. 5,334 ft., R.P. 1,820 lb.

McIntosh & Grim 1 Charles M. Winters, 756,000 cu. ft. gas after shot, Corniferous lime 4,842 ft., Oriskany 5,052 ft., T.D. 5,090 ft.

## SOUTHWEST TEXAS

# Duval and McMullen Counties Get New Producing Areas

By F. L. SINGLETON

CORPUS CHRISTI, Tex., July 21.—Two new producing areas were opened in Duval and McMullen counties. In addition a new sand discovery and an important extension were recorded for the East Premont field, Jim Wells County.

Exploration around the edges of the Benavides field, Duval County, continues to add to the potentiality of the structure as Hiawatha Oil & Gas Co. was preparing to test 32 George Parr. The well is situated about 1 mile southeast of the field proper, and casing is being cemented to test sand at 4,917-22 ft., where a 15-minute drill-stem test recovered 2,000 ft. of pipeline oil. Benavides is one of the most prolific Pettus sand fields to be found in the district, and the sand found in 32 Parr corresponds with one of several sands in the field proper, but whether production will be joined will be determined by future development.

Along this same trend, and located 1 mile east of the Thomas Lockhart field, H. H. Howell et al are moving in material for 1 E. A. Parr, a Pettus sand test.

In McMullen County, and located about 2 miles from the Campana field, Argo Oil Corp. 1 Edrington has been completed for an initial production of 139 bbl. per day through ⅛-in. choke. Total depth is 3,023 ft., and 7-in. casing was cemented several weeks ago at 3,012 ft. after a drill-stem test recovered pipe-line oil. The new discovery is located in the A.B.&M. Survey 61, and the same company is moving in material for 1-2 Edrington, an offset to the discovery well in the same survey.

### SUMMARY OF COMPLETIONS

***Lower Gulf Coast District***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 16 | 1,818 | 97,343 |
| Gas wells: Fields | 1 | ..... | 6,460 |
| Dry holes: Fields | 3 | ..... | 14,985 |
| Wildcats | 2 | ..... | 19,572 |
| Total | 22 | ..... | 138,360 |

***Southwest Texas District***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 8 | 1,070 | 28,441 |
| Dry holes: Fields | 3 | ..... | 11,510 |
| Total | 11 | ..... | 39,951 |

***South Central Texas District***

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 2 | 22 | 2,610 |
| Wildcats | 2 | ..... | 2,183 |
| Total | 4 | ..... | 4,793 |

**East Premont**
**Field Extended**

A mile west extension and new sand discovery were marked up for the East Premont field, Jim Wells County, as Sun 1 Canles was flowing at the rate of 7 bbl. of 37.2-gravity oil per hour while testing through perforated casing at 5,202-07 ft. The completion opens the four sands for the structure. Main crude production is from 6,500 ft., while gas-distillate is produced from two sands at 5,300 and 6,100 ft. Oil production was opened in the latter sand with the completion of Transwestern 2 Dunlap, completed through perforated casing at 6,091-94 ft., on an initial production of 154 bbl. daily through a 7/64-in. choke. The well is about ½ mile east of the company's 1 Dunlap, completed in 1938 as a distillate producer at 5,365-70 ft.

Additional development is expected to be announced for the North McFaddin (Bloomington) field, Victoria County, following the completion of Gulf 1 W. L. Nobley, 1,800 ft. northeast of production. Total depth of the hole is 5,864 ft., and the well flowed 65 bbl. of 37-gravity oil per day through a 3/32-in. choke from perforated casing at 5,859-64 ft. Main production thus far has been gas-distillate from sand at 5,100 ft. This is the first oil production for the 5,800-ft. sand although it was cored and tested in the discovery well, but showed gas distillate and salt water.

**Stratton West Flank**
**Has Another Sand**

Another gas-distillate sand has been logged in S. E. W. Oil Corp. 1 Union Central Life Insurance Co., an important west flank test to the Stratton field, Nueces County. The well is drilling ahead following a drill-stem test at 6,091-6,114 ft. which recovered 270 ft. of distillate and tested 1,050 lb. of working pressure. Drill-stem testing the previous week at 5,100 and 5,500 ft. showed the same results. The well is being drilled in search of downstructure sands which produce pipe-line oil on the east side of the structure.

In the Odem field, San Patricio County, Wellington Oil Co. staked location for 1 Charles C. Parker in the Juan Hart & Sons grant. The company recently marked up an important extension to the field with a new sand discovery at 5,200 ft.

**Sun and North Rincon**
**Fields Joined**

Production of the Sun and North Rincon fields, Starr County, was apparently merged as Sun 1 Callie Magee, midway between the two fields, flowed at the rate of 21 bbl. of 59-gravity distillate and 1,205,000 cu. ft. of gas in 7 hours, flowing through a ¾-in. choke. Total depth of the hole is 5,478 ft., and production is through perforated casing opposite sand at 4,665-70 ft.

Interest in the Rio Grande Valley area, centered on W. R. Davis Co., Inc., 1 Arizona-Texas Citrus Co., about 1½ miles southeast of the McAllen discovery well, Hidalgo County. Although no shows of oil or gas have been reported, 7-in. casing was being cemented after drilling to a total depth of 8,514 ft. Gas-distillate in this area is produced from two wells at 5,900 and 7,400 ft.

### SOUTHWEST TEXAS COMPLETIONS
### LOWER GULF COAST DISTRICT

**Wildcats**

Bee County: Hewitt & Dougherty 1 L. E. Weiss, dry, T.D. 10,032 ft.

Nueces County: Humble 1-246 State, dry, T.D. 9,540 ft.

**Fields**

Agua Dulce, Nueces County: Pan American 1 Woffard, 231 bbl., ⅛-in. choke, sand 7,048-75 ft.

Texas Royalty 4 Austin, 264 bbl., ⅛-in. choke, perf. casing 7,002-14 ft., T.D. 7,014 ft.

Bloomington, Victoria County: Gulf 1 W. L. Noble, 65 bbl., 3/32-in. choke, perf. casing 5,859-64 ft., T.D. 5,864 ft.

East Alice, Jim Wells County: Gravis & Doran 2 Clark, dry T.D. 5,754 ft.

East Premont, Jim Wells County: Magnolia 16 Seeligson, 40 bbl., ¼-in. choke, perf. casing 6,446-48 ft., T.D. 6,626 ft.

Fagan, Refugio County: Barnsdall 8 Marberry, 108 bbl., ¼-in. choke, perf. casing 5,651-54 ft., T.D. 5,659 ft.

Simmons & Rutherford 3 Fagan, 55 bbl., 5/64-in. choke, perf. casing 5,640-43 ft., T.D. 5,700 ft.

La Gloria, Jim Wells County: La Gloria Operators Committee 1 La Gloria Unit 14, perf. casing 6,790-6,820 ft., and 5,940-76 ft., 352 bbl., open flow.

Midway, San Patricio County: F. W. Boykin 1 Scrivner, 52 bbl., ¼-in. choke, perf. casing 6,076-78 ft., T.D. 5,350 ft.

Midway Victory Oil Co. 5-A Floerk, 48 bbl., 7/64-in. choke, perf. casing 5,321-25 ft., T.D. 5,350 ft.

Minnie Bock, Nueces County: E. A. Graham 2-A Gandy, 86 bbl., 7/64-in. choke, perf. casing 5,829-36 ft., T.D. 6,003 ft.

Pettus, Bee County: Union Producing 57 Ray, 99 bbl., gas lift, sand 3,952-70 ft.

Refugio, Refugio County: Ce-Beth Oil Co. 7-B Mitchell, 38 bbl., open flow, perf. casing 6,341-47 ft., T.D. 6,460 ft.

Hewitt & Dougherty 1 Clarkson, 96 bbl., 5/32-in. choke, perf. casing 6,230-45 ft., T.D. 6,381 ft.

Richard King, Nueces County: Southern Minerals 11 Walker, 111 bbl., ¼-in. choke, perf. casing 5,651-54 ft., T.D. 5,654 ft.

*(Continued on Page 80)*

# Well in Neale Finds Deepest Wilcox Production on Trend

By F. L. SINGLETON

NEW ORLEANS, La., July 21.—The search for crude-oil production in the lower Wilcox formation ended the past week as Atlantic Refining Co. opened important production in the Neale field, Beauregard Parish. The discovery well, 5 Musser-Davis, located on the south edge of the structure, was drilled to a total depth of 11,175 ft., and production was obtained by perforating casing opposite oil sand at 10,880-96 ft. On a 24-hour gage flowing through a ¼-in. choke, the well flowed 431 bbl. of 47.6-gravity oil. Tubing pressure was 1,625 lb., and casing pressure was 2,250 lb.

This is the deepest production to be found in the formation and its discovery ranks as the most important development since deep-sand production was opened along the trend in 1937. The new sand is approximately 2,546 ft. deeper than the regular field pay found in the upper Wilcox at 8,350-90 ft. It is one of 11 oil sands logged by an electrical survey at intervals from 9,572-11,172 ft. The top of the Wilcox was logged at 8,359 ft., and the following sands were shown by the electrical log, 9,572-84 ft., 9,650-62 ft., 10,130-56 ft., 10,364-10,410 ft., 10,552-69 ft., 10,816-32 ft., 10,880-95 ft., 10,907-22 ft., 10,976-84 ft. 11,034-46 ft., and 11,150-72 ft.

The field was opened the past year and up until the present well was drilled 11 producers had been completed in the upper sand. Based on the structural position of these wells, the limits of the field were believed to be confined to a comparatively small area. The drilling of this deep test was encouraged by recent developments along the Texas Gulf Coast sector in which numerous sands were found to exist in the lower section.

### Deep Test at Eola Showing Promise

As the above well was being completed interest in this phase of operations was shifted to the Eola field in Avoyelles Parish where another deep test was showing promise of production. The well is S. W. Richardson 1-C Haas Investment Co. in 7-2s-3e. Total depth of the hole is 11,935 ft., and two types of an electrical log showed possible oil and gas sand from 10,619-54 ft. A broken section was also shown from 11,600-11,800 ft. which looked fair on normal and third curve but not so good on the fourth curve. At the close of the week the well was shut down for orders and it is possible casing will be cemented for testing. This is the second 11,000-ft. test to be drilled on the structure which produces from the upper sand at approximately 8,500 ft.

The showing of the above two wells places favorable light on Humble Oil & Refining Co. 1 Edgewood Land & Livestock Co., a wildcat located on the Abbie Joe prospect in southern Beauregard Parish. The progress of this well has been temporarily halted due to a fishing job which resulted while 7-in. casing was being run to a total depth of 11,541 ft. Casing was stuck in the hole at 7,000 ft., and after attempts to loosen it failed, the crew was cutting and pulling, and it may be several days before the hole is cleaned. This well attempted to blow out while drilling at 11,515-18 ft., and casing was being cemented after sand showing oil was cored at the total depth.

### Pine Prairie Dome Continues Active

Another producer was apparently assured the east flank of the Pine Prairie dome, Evangeline Parish, as Gulf 1-A Evangeline Land & Mineral Co. is bottomed at 8,354 ft., and casing was being cemented for completion after an electrical log showed sand at 8,302-50 ft. The survey showed 118 mv. porosity and 15½ ohms resistivity on normal curve. This marks the fourth producer completed in this sand and development around the structure is being increased weekly. Location for a second test was made by Gulf for 2 Schatzkin in 37-3s-1w.

The Westwego field, Jefferson Parish, discovered during the early part of the year, assumed greater importance as Stanolind Oil & Gas Co. cored a thick section of oil sand in 1 Victoria Pitre. Total depth of the hole is in salt water sand at 9,091 ft., and 7-in. casing was cemented at 9,036 ft. The company plans to perforate below the oil sand and squeeze with cement, and reperforate casing for the production test at 8,984-88 ft. Sand and shale showing oil and gas was cored at 8,962-9,002 ft. An electrical log showed probable gas sand at 8,962-82 ft., and oil sand at 8,982-92 ft. The water level was determined at 8,992 ft. The well is several hundred feet from Reese E. Carter 1 Craven, completed in May at 8,996-99½ ft.

While details were not available, Phillips Petroleum Co. 1 L. L. & E., a wildcat located in the Bastian Bay area, southern Plaquemines Parish, is reported to have logged two sands showing oil from 9,000-10,000 ft. Total depth is 10,710 ft., and it is not known whether casing will be cemented or the hole drilled deeper. The well is located in 38-20s-29e, about 1½ miles east of the company's 1 State-Bastian Bay, a deep test abandoned several months ago.

## SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Fields | 20 | 4,595 | 148,064 |
| Dry holes: Fields | 4 | ..... | 25,168 |
| Total | 24 | ..... | 173,232 |

### LOUISIANA GULF COAST COMPLETIONS

#### Fields

Anse La Butte, St. Martin Parish: Crosby Drilling Co. 3 Republic Prod. Co., 190 bbl., ⅞-in. choke, perf. casing 6,112-31 ft., T.D. 6,229 ft.
Stanolind 5 Bergeron, 222 bbl., 5/32-in. choke, perf. casing 4,728-58 ft., T.D. 4,903 ft.
Bayou Blue, Iberville Parish: Superior 13 Schwing, 103 bbl., 8/64-in. choke, perf. casing 3,782-92 ft., T.D. 4,796 ft.
Bayou Choctaw, Iberville Parish: Louark 3 Morley Cypress Co., 444 bbl., ⅞-in. choke, perf. casing 8,214-24 ft., T.D. 8,556 ft.
Bayou Pigeon, Iberia Parish: Plymouth 2 Drews, 322 bbl., ⅞-in. choke, perf. casing 8,072-67 ft., T.D. 8,075 ft.
Cameron Meadows, Cameron Parish: 150 bbl., 14/64-in. choke, perf. casing 5,226-30 ft., T.D. 5,230 ft.
Chalkley, Cameron Parish: Stanolind 1 Sweet Lake Land Co., dry, T.D. 9,600 ft.
Charenton, St. Mary Parish: St. Mary Oil Co. 8 Robichaux, 95 bbl., plus 95 per cent salt water, pumping, T.D. 1,146 ft.
Fausse Point, Iberia Parish: Sun 9 Planters Lumber Co., top salt 6,451 ft., T.D. 6,453 ft.
Golden Meadow, La Fourche Parish: Bering 1-B La Fourche Realty Co., dry, T.D. 5,500 ft.
Grand Bay, Plaquemines Parish: Gulf 16-A Grand Prairie Levee District, 226 bbl., ⅞-in. choke, perf. casing 8,104-10 ft., T.D. 8,551 ft.
Texas 1 State-Dennis Pass, 519 bbl., ⅞-in. choke, perf. casing 9,970-85 ft., T.D. 10,101 ft.
Gueydan, Vermilion Parish: Pure 8 Alliance Trust Co., 218 bbl., ½-in. choke, perf. casing 9,870-9,902 ft., T.D. 9,903 ft.
Iowa, Jefferson Davis Parish: Stanolind 2 Willet, 324 bbl., ⅞-in. choke, perf. casing 8,225-74 ft., T.D. 8,900 ft.
Jennings, Acadia Parish: Shell 16 Community, 337 bbl., 10/64-in. choke, perf. casing 7,546-94 ft., T.D. 8,398 ft.
Lafitte, Jefferson Parish: Texas 1-B Rigolet Cooperative Co., 149 bbl., ⅛-in. choke, perf. casing 8,273-92 ft., T.D. 8,868 ft.
Pine Prairie, Evangeline Parish: Stanolind 1 Ardoin, 413 bbl., ⅞-in. choke, perf. casing 8,223-38 ft., T.D. 8,284 ft.
Port Allen, West Baton Rouge Parish: Amerada 2 Wilberts Sons Shingle & Lumber Co., 192 bbl. oil plus 65 bbl. salt water, 9/64-in. choke, perf. casing 9,633-39 ft., T.D. 9,721 ft.
Richie, Acadia Parish: Republic 2 Rubbert, dry, T.D. 3,551 ft.
St. Gabriel, Iberville Parish: Shell 2 Gueymard, 173 bbl., 12/64-in. choke, perf. casing 7,770-75 ft., T.D. 7,777 ft.
Sulphur, Calcasieu Parish: Union Sulphur 823 fee, 15 bbl. oil plus 50 per cent salt water, pumping, T.D. 3,934 ft.
Ville Platte field: Evangeline Parish: Continental 1 Albert Tate, 294 bbl., ⅞-in. choke, perf. casing 10,184-91 ft., T.D. 10,200 ft.
Vinton, Calcasieu Parish: M. L. Richardson 5 Vincent, 153 bbl., 12/64-in. choke, perf. casing 3,106-23 ft., T.D. 3,746 ft.
Woodlawn, Jefferson Davis Parish: Union Sulphur 1 Miller, 56 bbl., 11/64-in. choke, perf. casing 9,509-17 ft., T.D. 9,750 ft.

### LOUISIANA GULF COAST DRILLING REPORT

Allen Parish: W. T. Burton 1 Calcasieu National Bank, 21-5s-3w, top salt-water sand 6,976 ft., drilling salt-water sand 6,990 ft.
Frank Campbell et al 1 Allan Bowles, 14-3s-6w, drilling sand and shells 906 ft.
Avoyelles Parish: Joe Humphrey 1 Frazee, 6-3n-3e, top Vicksburg 2,494-2,524 ft., Jackson 2,700-30 ft., Hockleyensis 2,760-90 ft., Moody Branch 3,048 ft., first Cockfield sand with brackish taste 3,101 ft., drilling shale 4,008 ft.
Calcasieu Parish: Pan American 1 Louisiana Farm & Livestock Co., Moss Lake area, coring 9,629 ft.
Cameron Parish: Superior 1 Calcasieu National Bank, Lakeside field, drilling in sidetracked hole 8,343 ft.
George Echols 1 Louisiana Land Co., 16-15s-14w, dry, T.D. 6,010 ft.
St. Landry Parish: J. A. Hafner, Jr., 1 Hidalgo, 26-6s-3e, drilling sandy shale 5,219 ft.
St. Martin Parish: Amerada et al 1 State, 31-11s-10e, derrick.
St. Mary Parish: Texas 2 State Rabbit Island in Gulf of Mexico, 18s-18e, drilling sandy lime 5,715 ft.
Terrebonne Parish: Sinclair Prairie 1 A. J. Duplantis, 12-18s-18e, drilling shale and sand 8,220 ft.
Vermilion Parish: A. Delcambre 1 Ludovic Landry, 54-13s-5e, drilling sand and shale 1,213 ft.

## Southwest Texas Fields

(Continued from Page 79)

South Clara Driscoll, Nueces County: Texas 3 Flynn, dry, T.D. 5,850 ft.
Stratton, Nueces County: Southern Minerals 20 Stratton, 92 bbl., ⅛-in. choke, perf. casing 6,590-98 ft., T.D. 6,625 ft.
West Alfred, Jim Wells County: Lewis Production 1-A Adams, dry, T.D. 3,381 ft.
Wade City, Jim Wells County: W. R. Quinn, 99 bbl., ¼-in. choke, perf. casing 4,778-80 ft., T.D. 4,782 ft.
Woodsboro, Refugio County: W. F. Morgan 1 Boenig, 20 bbl., ¼-in. choke, perf. casing 5,828-35 ft., T.D. 7,200 ft.

### LAREDO DISTRICT

#### Fields

Alta Mesa, Brooks County: Standard Oil Co. of Texas 14 Mestena, 199 bbl. oil and 21 bbl. salt water, pumping, T.D. 2,677 ft.
Government Wells, Duval County: Smith & Storey, 66 bbl., pumping, T.D. 2,986 ft., P.B., T.D. 2,310 ft.
Kelsey, Brooks County: Magnolia 10 State, 432 bbl., ¼-in. choke, perf. casing 4,734-37½ ft., T.D. 4,747 ft.
Killam, Webb County: O. W. Killam 14 Garcia, 90 bbl., ¼-in. choke, perf. casing 1,999-2,004 ft., T.D. 2,053 ft.
O. W. Killam 11 Garcia, 71 bbl., pumping, perf. casing 2,013-17 ft., T.D. 2,054 ft.
Rincon, Starr County: Continental 98-B Slick, 93 bbl., ⅞-in. choke, perf. casing 3,890-3,906 ft., T.D. 4,115 ft.
Continental 2-E Slick, dry, T.D. 4,181 ft.
Humble 7 Montalvo, dry, T.D. 5,319 ft.
Sun, Starr County: Sun 8-B Speer, 16 bbl., 3/32-in. choke, perf. casing 4,606-12 ft., T.D. 4,941 ft.
Sun 9-A Montalvo, 103 bbl., ⅛-in. choke, T.D. 4,868 ft.
White Creek, Live Oak County: D. C. Norgross 1 Shary, dry, T.D. 2,010 ft.

### SOUTH CENTRAL TEXAS

#### Wildcats

Bexar County: Joe Noake 1 Stidman, dry, 1,244 ft.
Dimmit County: Boy Mogford 1 Barnard, dry, T.D. 939 ft.

#### Fields

Gas Ridge, Bexar County: Southwest Drilling 4 Covell, 2 bbl., pumping, sand 449-51 ft., T.D. 460 ft.
Luling, Caldwell County: Danish-American 8 Casey, 20 bbl. oil plus 100 bbl. sulfur water, pumping, T.D. 2,150 ft.

### SOUTHWEST TEXAS DRILLING REPORT

Duval County: H. H. Howell et al E. A. Parr, G.H.& H.R.R. Sur., 1 mi. E of Thomas Lockhart field, rigging up for Pettus sand test.
Hidalgo County: W. R. Davis 1 Arizona-Texas Citrus Co., T.D. 8,514 ft., running 7-in. casing.
W. R. Davis 1 C. W. Dawley, Block 13, Lot 8, Por. 71, Closner subd., drilling sandy shale 4,504 ft.
Live Oak County: E. M. Jones 3-B George West, 4½ mi. SW of George West, T.D. 9,733 ft., prepare to perf. at 9,663-73 ft.
Nueces County: Premont Petroleum Co. 1 Ross, Santa Petronella grant, drilling shale 3,350 ft.
Webb County: W. C. McBride, Inc., 1 De La Garza, 7½ mi. N of Bruni, Sur. 675, perf. casing 2,336-44 ft., bailed 33 gal. of oil and drilling water in 12 hr.
Union Oil Co. 1 M. V. Volpe, Sur. 2011, drilling shale 2,360 ft.
Magnolia 1-A Hamilton Ranch, T.D. 9,179 ft., 7-in. casing 2,596 ft., recovered fresh water 2,460-75 ft., and 2,480-85 ft., prepare to abandon.
Willacy County: Pan American 1 Burgess, Willamar field, T.D. 2,250 ft., prepare to resume drilling.
Clark & Cowden 1 Yturria Land & Livestock Co., Lot 1, La Sal Vieja area, drilling shale and sand 3,687 ft.

## White County, Ill., Gets New Pool

MATTOON, Ill., July 21.—Another new pool for White County was indicated last week when Wall-Mitchell 1 Kershaw, SW SW NE 7-9s-8e, made 30 ft. of clean oil and 250 ft. of oil-cut mud on a 1-hour drill-stem test of the Cypress sand at 2,878-2,900 ft. This will make a total of more than 20 pools for the county.

# Tests North and Northeast Of Tinsley Seek Extension

By GEORGE WEBER

JACKSON, Miss., July 21.—Northeast and southwest outposts to Tinsley were being watched closely this week for possible signs of field extension. The field itself embraced most activity, for wildcatting in Mississippi and Alabama is quiet. Few wildcat tests are actively drilling and those that are drilling reported no shows or other data of interest during the week.

## SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Tinsley | 5 | 4,194 | 24,844 |
| Gas wells: Jackson | 1 | *20.0 | 2,415 |
| Total | 6 | | 27,259 |

*Million cu. ft.

The K. Hughes et al 1 G. C. Woodruff, located about 2½ miles northeast of Tinsley, topped the Selma chalk formation last week at —5,000 ft. subsea and was drilling for the Eutaw at latest reports, below 5,585 ft. A core taken at 5,518-38 ft. showed hard dry sand, believed to be still in the Selma. Since much of the production on the north edge of the field is in the lower Eutaw and Tuscaloosa formations, the test will be carried into the latter. As compared with the Slick-Urschel Oil Co. 16 Slick, most northerly test in the field to date, the Hughes wildcat was running 479 ft. low on the top of the Midway formation and 485 ft. low on the top of the Selma.

Slick-Urschel Oil Co. is beginning 1 McGraw, which is more than 1 mile north of production in the field. The data from the two outposts will settle the possibility of northward extension. If successful in finding production, either of them might revive drilling at the north end, which has been quiet during the past year, with most operations moving southward.

The current trend southwest from the recently extended southeast sector of the field resulted in the staking of further outposts and edge tests in that direction from production. W. G. Ray Drilling Co. plans to drill 1 Walker, nearly a mile southwest of production. In addition, Fred Endom has staked 1 State School Land, in the NE cor. of 16-9-3w, 3 miles southwest of production. This test is staked on a surface prospect, and several other locations have been staked around it, their drilling pending success of the outpost operation.

Meanwhile, field drilling continued at record volume, with five well completions during the past week. Tinsley production is a' breaking records, with an average of 46,716 bbl. daily being withdrawn last week. The added production is due to new outlets, particularly to the Globe Oil & Refining Co. at Lemont, Ill. Since Tinsley continues to be one of the largest oil fields in the nation without a pipe-line outlet, its dependence on tank cars for shipments makes future production at the current level problematical.

### Wildcats

In Stone County, Danciger Oil & Refining Co. is drilling 1 Stone County below 7,740 ft., having topped the Selma chalk at 5,720 ft., the Eutaw formation at 6,923 ft. and the Tuscaloosa formation at 7,102 ft. No shows have been reported.

British American 1-A Houston Estate is still shut down after operators plugged back from 4,023 to 3,285 ft. where another test will be made of a section showing oil in the Eutaw formation.

In Alabama, Union Producing Co. is drilling below 7,957 ft. in 1 Waite, which is contracted to go to 12,000 ft. No geological information is being released on the Clarke County test.

#### MISSISSIPPI COMPLETIONS

Jackson, Hinds County: City of Jackson 3 State fee, NW SE SW 25-6n-1e, est. 20,000,000 cu. ft. gas, open flow, 8-in. casing at T.D. 2,415 ft., gas rock.

Tinsley, Yazoo County: Midstates Oil Corp. 2 W. F. Cummings Est., W½ SE 31-10-2, 648 bbl., open tubing, T.P. 10 lb., C.P. 40 lb., T.D. 5,007 ft., 7-in. casing 4,940 ft., Woodruff zone.

Midstates Oil Corp. 4 Cummings, NE SW SE 31-10-2, 768 bbl. open tubing, T.P. 20 lb., C.P. 60 lb., T.D. 4,983 ft., 7-in. casing 4,936 ft., Woodruff zone.

G. L. Reasor 3 Sorrells, SW SE SE 31-10-2w, 1,080 bbl., 24/64-in. choke, T.P. 90 lb., T.D. 4,988 ft., 7-in. casing 4,988 ft., perf. 4,965-86 ft., Woodruff zone.

Union Prod. Co. 6 N. Berry, SW SE SW 25-10-3, pumped 714 bbl., T.D. 5,041 ft., 7-in. casing 5,035 ft., perf. 4,666-4,702 ft., Woodruff zone.

Union Prod. Co. 3 Middleton, NE NE 35-10-3, 984 bbl., 32/64-in. choke, C.P. 20 lb., T.P. 45 lb., T.D. 4,825 ft., 7-in. casing 4,821 ft., perf. 4,750-85 ft., Woodruff zone.

#### MISSISSIPPI ACTIVE WILDCATS

Chickasaw County: Century Oil Co. 1-A Flaherty, S½ SW SW 8-13s-3e, fishing 2,000 ft.

Grenada County: Grenada County Drlg. & Dev. Co. 1 Connecticut General Life, NW SE 28-23n-5e, S.D. 3,735 ft.

Kemper County: D. C. Williams et al 1 McKelvain, SE NE 2-9n-17e, S.D. 1,700 ft.

Leake County: Sinclair-Wyoming 1 Pearl River, NW SE NW 28-9n-6e, T.D. 7,634 ft., fishing.

Montgomery County: Henderson Oil Co. 1 School Land, SE NE NW 16-19n-6e, S.D. 3,720 ft.

Sharkey County: British American 1-A Houston Est., NW NE SW 23-11-7w, old T.D. 4,023 ft., P.B. 3,285 ft., W.O.C.

Stone County: Danciger Oil & Ref. Co. 1 Stone County, SE SW 16-2s-11w, drilling hard shale 7,741 ft.

Yazoo County: K. Hughes et al 1 G. C. Woodruff, NE SE 19-11n-2w, drilling 5,585 ft.

Slick-Urschel Oil Co. 1 F. A. McGraw, SW NW 25-11n-3w, drilling 3,180 ft.

#### ALABAMA ACTIVE WILDCATS

Clarke County: Union Producing Co. 1 M. M. Waite, C NW 27-8n-1w, drilling 7,957 ft.

Franklin County: E. O. Heath, Jr., 1 Hester, SW SW 4-6s-12w, fishing 950 ft.

Lauderdale County: G. F. Mercer 1 Patterson, NW SE 8-2s-12w, drilling shale 303 ft.

## Baker-Glendive Deep Test Waiting for Drill Pipe

BILLINGS, Mont., July 22.—Carter Oil Co. 1 Northern Pacific, deep test in SE SW 19-4n-62w, Fallon County, Montana, has been shut down at a total depth of 6,559 ft. waiting for drill pipe. Nine and five-eighths-inch casing was set at 6,548 ft. to protect the hole.

Although the Baker-Glendive structure on which the test is located is producing in several shallow wells nearby, the test is considered a rank wildcat because of the proposed 10,000-ft. depth.

The structure is related to the North Dakota area which has been heavily leased during the past few months.

## Rocky Mountain Runs

Production estimates for week ended July 19, 1941:

#### WYOMING

| | |
|---|---|
| Salt Creek | 13,860 |
| Big Muddy | 1,140 |
| Badger Basin | 160 |
| Black Mountain | 100 |
| Byron | 3,800 |
| Cody Dome | 40 |
| Cole Creek | 760 |
| Dallas Derby | 430 |
| Dutton Creek | 60 |
| East Mahoney-Ferris | 150 |
| Elk Basin | 670 |
| Frannie | 2,880 |
| Garland | 1,730 |
| Grass Creek | 5,350 |
| Hidden Dome | 90 |
| Hudson | 230 |
| Iron Creek | 20 |
| LaBarge | 1,830 |
| Lance Creek | 26,310 |
| Lost Soldier | 6,700 |
| Mahoney | 1,160 |
| Maverick Springs | 800 |
| Medicine Bow | 670 |
| Mule Creek | 420 |
| Oregon Basin | 6,280 |
| Osage | 600 |
| Poison Spider | 300 |
| Quealy Dome | 430 |
| Rock River | 2,560 |
| So. Casper Creek | 480 |
| Teapot | 10 |
| Warm Springs | 70 |
| Wertz | 5,460 |
| Total Wyoming | 85,550 |

#### MONTANA

| | |
|---|---|
| Kevin-Sunburst | 4,400 |
| Border | 80 |
| Cat Creek | 440 |
| Cut Bank | 13,270 |
| Dry Creek | 560 |
| Pondera | 680 |
| Total Montana | 19,430 |

#### COLORADO

| | |
|---|---|
| Iles Dome | 1,570 |
| Florence | 110 |
| Fort Collins and Wellington | 350 |
| Wilson Creek | 1,090 |
| Moffatt | 330 |
| Rangely | 130 |
| Tow Creek | 100 |
| Price | 280 |
| Total Colorado | 3,960 |

#### NEW MEXICO

| | |
|---|---|
| Arrowhead | 3,760 |
| Caprock | 20 |
| Cooper | 2,830 |
| Corbin | 50 |
| Eaves | 800 |
| Eunice | 17,650 |
| Halfway | 310 |
| Hardy | 2,400 |
| Hobbs | 9,680 |
| Jal | 370 |
| Langlie | 3,980 |
| Lynch | 410 |
| Lynn | 940 |
| Mattix | 4,200 |
| Monument | 18,640 |
| North Lynch | 30 |
| Penrose | 3,880 |
| Rhoades | 460 |
| Salt Lake | 40 |
| Skaggs | 70 |
| Skelly | 1,670 |
| South Eunice | 2,630 |
| South Lovington | 1,350 |
| Vacuum | 12,680 |
| West Eunice | 400 |
| Artesia-Maljamar | 18,840 |
| Aztec-Bloomfield | 10 |
| Getty | 100 |
| Hogback | 200 |
| Rattlesnake | 260 |
| Table Mesa | 100 |
| Total New Mexico | 108,760 |
| Total Rocky Mountain region | 217,700 |

## Crude-Oil Prices

Phillips Petroleum Co. and Magnolia Petroleum Co. joined other Texas Panhandle purchasers this week in posting a scale ranging from 91 cents per barrel for crude below 29° gravity to $1.15 for 40° gravity and above. Both companies made their higher prices retroactive to July 9.

An advance of 27 cents per barrel was posted for Turner Valley, Canada, crude effective July 17, making the scale there range from $1.35 per barrel for 33° gravity up to $1.97 for 64° gravity.

The complete schedule of crude-oil prices was published July 3 and will next appear August 7. Representative selected prices appear below:

| | |
|---|---|
| East Texas | $1.25 |
| Conroe | 1.43 |
| Tepetate, Louisiana | 1.18 |
| Smackover, Arkansas, heavy | .83 |
| Illinois basin | 1.37 |
| Pecos County, Texas | .95 |
| Lance Creek, Wyoming | 1.12 |
| Bradford, Pennsylvania | 2.75 |

### Gravity Schedules

Top prices include all gravities above grades designated, and low prices include all gravities below grades designated:

| Gravity | Signal Hill Calif. | Okla. homa, Kansas | Gulf Coast, Texas | West Texas, Lea County, N. M. |
|---|---|---|---|---|
| 18-18.9 | $0.80 | ... | ... | $0.70 |
| 19-19.9 | .84 | ... | $1.06 | .70 |
| 20-20.9 | .88 | $0.85 | 1.08 | .72 |
| 21-21.9 | .92 | .87 | 1.10 | .74 |
| 22-22.9 | .96 | .89 | 1.12 | .76 |
| 23-23.9 | 1.00 | .91 | 1.14 | .78 |
| 24-24.9 | 1.03 | .93 | 1.16 | .80 |
| 25-25.9 | 1.07 | .95 | 1.18 | .82 |
| 26-26.9 | 1.11 | .97 | 1.20 | .84 |
| 27-27.9 | 1.15 | .99 | 1.22 | .86 |
| 28-28.9 | 1.18 | 1.01 | 1.24 | .88 |
| 29-29.9 | 1.20 | 1.03 | 1.26 | .90 |
| 30-30.9 | 1.23 | 1.05 | 1.28 | .92 |
| 31-31.9 | .... | 1.07 | 1.30 | .94 |
| 32-32.9 | .... | 1.09 | 1.32 | .96 |
| 33-33.9 | .... | 1.11 | 1.34 | .98 |
| 34-34.9 | .... | 1.13 | 1.36 | 1.00 |
| 35-35.9 | .... | 1.15 | 1.38 | 1.02 |
| 36-36.9 | .... | 1.17 | 1.40 | 1.04 |
| 37-37.9 | .... | 1.19 | 1.42 | 1.06 |
| 38-38.9 | .... | 1.21 | 1.44 | 1.08 |
| 39-39.9 | .... | 1.23 | 1.46 | 1.10 |
| 40 and above | .... | 1.25 | 1.48 | 1.12 |

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*Book Department*

The Oil and Gas Journal
Tulsa, Oklahoma



# Seven Wildcats Started After Intense Lease Play

By R. MARNE SANFORD

DALLAS, Tex., July 21.—As a result of several weeks of intensive leasing and blocking in this district, wildcatting has taken a sudden upward jump. Leasing is still going on in scattered localities but the main interest has been in wildcats. Seven new wildcats were indicated for East Texas during the week. Van Zandt County will have two new tests and Henderson, Cherokee, Wood, Fannin and Harrison counties one each.

In Van Zandt County, George McCamey is reported to have taken a 3,700-acre block upon which he is planning to drill a wildcat test. In the southwestern part of the county, materials were being moved in by Hickok & Reynolds for 1 J. W. Bush, located on a 120-acre tract in the Pleasant Valley Survey, approximately 12 miles northeast of Mabank. The wildcat is contracted to 4,700 ft.

E. L. Larue of Athens has leased 3,500 acres on the flank of the Larue dome of eastern Henderson County and is reported to be planning another wildcat for that area.

At the end of the week derrick had been moved in for Bobby Manziel 1 Limber Log School, John Vaughn Survey, 4 miles southwest of Bullard in northwest Cherokee County. This is the third attempt Manziel has made in this county. No. 1 Limber Log School is 3 miles southwest of 1 Douglas, Brock Survey, which is shut down at 5,641 ft. and 3 miles northwest of 1 Nagle heirs, T. Timmons Survey, which was abandoned after encountering dry Woodbine sand at 4,945 ft.

Six miles north of Crow and 9 miles northwest of Hawkins in Wood County, J. C. Moore is rigging up at 1 G. A. Green. The wildcat will be drilled on a 1,340-acre tract in the James M. Candler Survey.

A shallow test for southwestern Fannin County is being planned by P. C. Jeffress at 1 E. Parkhurst, on the north edge of an 80-acre tract in the M. P. Davis Survey. The wildcat is situated on a 1,600-acre block and is only 30 ft. from the Scrivner & Clower test drilled several years ago, which was carried to 1,322 ft. after passing up a sand showing oil at 780 ft.

Harrison County was given another wildcat test as the week closed. Coats Drilling Co. was making preparations to spud 1 Blocker estate, M. S. Ussery Survey. The wildcat is scheduled to 3,500 ft. as a Paluxy sand test.

### Leasing

### Operations

Sun Oil Co. is in the process of leasing 6,100 acres in southwest Harrison County from the Koon Kreek Klub. The area is approximately 10 miles south of Athens. Members of the club have voted to accept the bid, which calls for $1 per acre bonus and $1 per acre rental for 10 years. If the deal is completed Sun will have approximately 10,000 acres in the area for possible wildcat exploration.

In the Friendship sector of western Harrison County, the Texas Co. has leased 490 acres. The block is in the northeast corner of the Calloway Dean Survey and on the George Chapman lands.

East of Kilgore in Gregg County, H. H. Whitehurst leased a 24-acre tract in the E. Bradley Survey. Whitehurst has agreed to start a test by November 15.

### British American 1 Young Shows for Gas Well

A deep wildcat test in the Malakoff section of Henderson County, the British American Oil Producing Co. 1 Young, Joseph Rice Survey, 6 miles southwest of Athens, is reported to have found a zone of good porosity in the Rodessa section of the Glen Rose. A section of the Glen Rose recovered in a core taken from 7,731 to 7,739 ft. had a fair gas show and stains of oil. Operator is preparing to run a drill-stem test on the showing.

If proven, this wildcat would open the second deep gas-distillate area for the county. Henderson County already has a large gas-distillate sector in the Opelika area in the eastern part of the county.

## SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil: East Texas field | 3 | *141 | 10,752 |
| Other fields | 1 | 375 | 4,823 |
| Gas: Fields | 1 | †115 | 5,342 |
| Dry: Fields | 1 | ..... | 3,824 |
| Wildcats | 2 | ..... | 9,897 |
| Total | 8 | ..... | 40,711 |

*Hourly gages. †Million cu. ft.

## EAST TEXAS COMPLETIONS

### Wildcats

Houston County: Lone Star Gas & Trinity Gas 1 Bolton, 467 ft. from S and 1,400 ft. from E lines of N½ of 162 acres in G. W. Wilson Sur., 2 miles SE of Percilla, dry at 5,811 ft.

Rusk County: G. C. Gasty 1 Kangarga Bros., T. Wood Sur., 8 mi. W and N of Laneville, dry at 4,086 ft.

### East Texas Field

Longview, Gregg County: Stanolind and Tide Water 15 Fonville, 65 bbl., 3,514-27 ft.

Longview, Upshur County: J. D. Reynolds 9 Miller, dry at 3,824 ft.

Kilgore, Gregg County: Ed Pace 13 Elder, 36 bbl., 3,540-75 ft.

Joiner, Rusk County: Zephyr Oil B-8 Glover, 40 bbl., 3,568-3,650 ft.

### Other Field Completions

Hawkins, Wood County: Humble 1 Snider, 113 bbl. in 6 hr., ¼-in. choke, perf. casing 4,710-16 ft., 4,792-4,802 ft., 4,806-14 ft., T.D. 4,823 ft.

Long Lake Gas, Anderson County: Tide Water-Seaboard 17 Shaw & Cern, 115,000,000 cu. ft. gas per day, perf. casing 5,286-5,304 ft., T.D. 5,342 ft.

## EAST TEXAS ACTIVE WILDCATS

Camp County: Talco Asphalt Co. 1 McKenzie, L. Williams Sur., ⅝ mile W of Pittsburg field, drilling 7,828 ft.

Cherokee County: Bobby Manziel 1 Douglas, 463 ft. from W and 227 ft. from N lines SE 79-acre tract, J. W. Brock Sur., S.D. 3,565 ft.

Bobby Manziel 1 Limber Log School, 4,100 ft. from S and 9,550 ft. from E lines John Vaughn Sur., 4 mi. SW of Bullard, derrick, first report.

Fannin County: H. W. English 1 Parkhurst, M. P. Davis Sur., 7 mi. W of Leonard, S.D. 800 ft.

Freestone County: Westbrook & Whistler 1 Coleman, H. Howard Sur., 2½ miles SW of Streetman, S.D. 195 ft.

Gregg County: Roger Lacy 1 Flannigan, 9,450 ft. from S and 1,555 ft. from W lines of H. Edwards Sur., 8 mi. S of Willow Springs, drilling 3,500 ft.

Henderson County: British American Oil 1 Young, Joseph Rice Sur., 7½ mi. SW of Athens, coring 7,769 ft.

Lone Star Gas 2 C. H. Allen, 3,490 ft. from W and 4,780 ft. from S lines John Lawson Sur., first report.

Houston County: T. C. Chism and G. L. Porter 1 P. D. Austin, Frank Johnson Sur., 1½ miles SW of Crockell, running 8⅝-in. casing to 182 ft., T.D. 448 ft.

Navarro County: W. H. Clement 2 Allen Eden, (old well drilling deeper), 1,943 ft. from SE and 881 ft. from NE lines of 708-acre tract in M. Shire Sur., old T.D. 311 ft., S.D. 420 ft.

J. B. Daniels 1 P. J. Jones, 150 ft. from NW and NE lines of 100-acre tract in T. J. Jordan Sur., derrick.

Robertson County: Cox & Bentley 1 Clark Kello, 1,140 varas from NW and SW lines of J. M. Bustilla Sur., set casing, waiting on cement.

Rusk County: M. D. Bryant 1 L. H. Evans, 416 ft. from S and 467 ft. from E lines of George May Sur., set 10-in. casing to 217 ft., drilling 3,960 ft.

R. S. Kirby 1 D. R. Richardson, 467 ft. from N and E lines of Block 5, J. I. Sanches Sur., 9 mi. W of Laneville, running 13-in. casing to 200 ft.

L. O. McMillan 1 Pool, George May Sur., Laneville area, flowed 55 bbl. oil through tubing, 10 per cent basic sediment and water, T.D. 4,128 ft.

Smith County: Sun Oil B-1 Sanders, 468 ft. from N and 1,000 ft. from W lines of 81.53-acre tract in Mathew Arnold Sur., 2 mi. SW of Chapel Hill, location, first report.

Wood County: N. P. Powell 1 Markey & Miller, 467 ft. out of the SW cor. H. H. Edwards Sur., running 10-in. casing to 1,620 ft.

Bobby Manziel 1 Barney Holmes, 834 ft. from S and 260 ft. from W lines of T. J. Rusk Sur., digging pits.

## MICHIGAN OPERATIONS

# Reed City Booms With Fifth Large Well and Fifty Drilling

By OTTO C. PRESSPRICH

SAGINAW, Mich., July 21.—With the fifth big producer completed and the number of active tests approaching the 50 mark, Michigan's new Reed City oil field strengthened belief of oil men last week that it is destined to become one of the state's major producing areas. Because of proration, limiting well output in the new Osceola County district to 480 bbl. a day, the recent completions have added 2,400 bbl. to the state's daily production, serving to halt the downward trend of the past 2 years. Permits for 11 new tests were issued during the week by the state Conservation Department.

Newest of the Reed City wells, Gulf Refining Co. 1 Henry, in proven area of Section 31, Lincoln Township, gushed at an initial rate estimated at 6,000 bbl. a day. Next in line for completion is Pure Oil Co. 1 Lomp, east offset of the Gulf well, Gulf 2 Henry Gingrich, north offset to Weber Oil Co. 1 Gabel due to follow.

Also coming in for attention is the new development scheduled for the potential production area established by the Eugene Hilliard wildcat gusher brought in a few weeks ago in Roscommon County, near the Clare county line.

While the Hilliard wildcat continues to flow heavily, though pinched, Freeman Oil Co. is starting a test ½ mile to the north and Hilliard has another test west of the discovery. In bordering Franklin Township, Clare County, Wicklund Development Co. plans a test in Section 1.

Northerly extension of Bay County's oil field was indicated as Chapman Oil Co. 1 Duse, Section 34, Kawkawlin Township, gave every promise of good production. The hole while still drilling was reported to have filled with oil. The test is a mile north of other wells in the area. In Monitor Township, Chapman 1 Ruegsegger, Section 3, completed at 2,910 ft. rated 202 bbl. a day pumping and flowing. The Basin Oil Co. 1 Bateson in Section 2 settled to 50 bbl. on pump. Both were acidized.

**Gulf Deep Test**
**Near Trenton**

Gulf Bay-Monitor 1 Bateson, was near Trenton test. The hole, the state's deepest was almost at 9,000 ft. at the week end. The Trenton horizon was expected within the next 400 ft., indications being that it will be reached before the month ends.

Last week's reports listed a total of 22 completions and 24 new drilling permits. Thirteen of the completions were producers, five being reported in Allegan County. All of those were small wells. Aside from the 11 Osceola permits, the rest went: three to Allegan, two each to Clare and Isabella, one each to Van Buren, Mecosta, Kalamazoo, Lake, Arenac and Roscommon. The year's total stands at 453.

### MICHIGAN COMPLETIONS

**Allegan County**

Cheshire Township: W. L. McClanahan 1 Mortensen et al, SW SW SW 36-1n-14w, dry, T.D. 1,271 ft.
Dorr Township: Muskegon Oil Corp. 1 Siewald, NE SE SW 29-4n-12w, pump, 18 bbl. and water, T.D. 1,640 ft., acid.
Salem Township: John H. McLean 3 Zerfas, C E½ E½ SW SE 10-4n-13w, pump, 105 bbl., acid, T.D. 1,635½ ft.
Trowbridge Township: Louis Rose 1 Consumers Power, NW NE SE 3-1n-13w, 75 bbl. and water, acid, T.D. 1,315 ft.
Lewis Oil & Gas Co. et al 2 Foster, NW SW NE 29-1n-13w, 75 bbl. and water, acid, T.D. 1,370 ft.
Leonard C. Sleep 3 Bridgeman, NE SW NW 29-1n-13w, pump, 20 bbl. and water, acid, T.D. 1,354 ft.

**Arenac County**

Adams Township: Don Rayburn 1 State-Arenac, SE SE NW 9-19n-3e, wildcat, dry, T.D. 3,135 ft.
Pure Oil Co. 2 Yenior, SE SE NW 22-19n-3e, 1,800 bbl., est., acid, T.D. 2,969½ ft.
Don Rayburn 2 White, SE SW SW 24-19n-3e, acid, pump, 5 bbl., T.D. 2,968 ft.

**Bay County**

Monitor Township: Basin Oil Co. 1 Bateson, NE SE SE 2-14n-4e, acid, pump, 163 bbl. settling to 50, T.D. 2,857 ft.

### SUMMARY OF COMPLETIONS

| | No. | Bbl. | Footage |
|---|---|---|---|
| Oil wells: Allegan County | 5 | 293 | 7,315 |
| Arenac County | 2 | 1,805 | 5,938 |
| Bay County | 2 | 365 | 5,767 |
| Osceola County | 1 | 6,000 | 3,640 |
| Ottawa County | 2 | 29 | 3,765 |
| Van Buren County | 1 | 32 | 1,309 |
| Dry holes: Allegan County | 1 | ..... | 1,271 |
| Arenac County | 1 | ..... | 3,135 |
| Gladwin County | 1 | ..... | 3,668 |
| Kent County | 1 | ..... | 1,847 |
| Missaukee County | 1 | ..... | 1,045 |
| Ottawa County | 1 | ..... | 1,860 |
| Van Buren County | 3 | ..... | 3,886 |
| Total | 22 | ..... | 44,346 |

Chapman Oil Co. 1 Ruegsegger, SW NW NE 3-19n-4e, acid, pump and flow 202 bbl., T.D. 2,910 ft.

**Gladwin County**

Butman Township: E. W. Collins 1 Suter, NE SE NE 33-20n-1w, dry, T.D. 3,668 ft.

**Kent County**

Byron Township: A. S. Cochran 1 Vander-Oudermeulen, SW SW SE 3-5n-12w, wildcat, dry, T.D. 1,847 ft.

**Missaukee County**

Butterfield Township: Twin Drilling Co. 1 Gray, C SE 6-22n-5w, dry, T.D. 1,045 ft.

**Osceola County**

Lincoln Township: Gulf Refining Co. 1 Henry, NE NE NW 31-18n-10w, 6,000 bbl., natural, est., T.D. 3,640 ft.

**Ottawa County**

Jamestown Township: Southwest Development Co. 1 Miller, NW NE SW 26-5n-13w, wildcat, dry, T.D. 1,860 ft.
Tallmadge Township: Edward B. Strom, Tr., 1 Hompe, SW NE NW 1-6n-13w, pump, 4 bbl., acid, T.D. 1,905 ft.
H. C. Williams 2 Gavin, NW NE NE Sec. 33, pump, 25 bbl., acid, T.D. 1,860 ft.

**Van Buren County**

Bloomingdale Township: Clapsaddle & Harris 1 Brooks, SE SE NW 2-1s-14w, wildcat, dry, T.D. 1,328 ft.
Clapsaddle & Harris 2 Teal, SE SW SW 1-1s-14w, show oil, acid, dry, T.D. 1,198 ft.
N. R. Dodd 1 Helms et al, SE SE NE 2-1s-14w, pump, 32 bbl. with water, acid, T.D. 1,309 ft.
Porter Township: L. F. Mihlheim, Tr. 2 Theisen, NW SE SW 18-4s-13w, dry, 1,360 ft.

## HONORED BY EMPLOYES . . .

*Otto Koch, president of Kendall Refining Co., Bradford, Pa., and J. B. Fisher, executive vice president, watching activities at a recent gathering of company employes. Mr. Koch was presented with a silver service tray engraved with signatures of employes associated with the firm more than 10 years and a scroll containing signatures of all other employes in recognition of his recent seventy-fifth birthday*

## Demand for Crude Oil and Motor Fuel Goes Higher

Demand for 3,940,000 bbl. of crude oil daily during August and for 64,700,000 bbl. of motor fuel in the month was forecast last week by the Bureau of Mines.

Even more significant than the increase of 92,900 bbl. in the daily crude demand in August over the July forecast and a substantial gain predicted for motor fuel was the bureau's observations on the transportation situation covered in a discussion of the general situation in this language:

"Progress in transportation readjustments necessitated by the withdrawal of tankers from the Gulf to East Coast movement indicates less curtailment of Gulf Coast markets in August than might have been anticipated, provided no further tanker withdrawals occur. The stepping up of deliveries by the remaining tankers in service, the shift of tankers from the California-Atlantic service to the Gulf-East Coast route, increased overland shipments, and participation in larger exports and increasing naval requirements may offset to a considerable extent the loss of Gulf Coast markets due to a curtailment in East Coast consumption.

"Total stocks of crude and refined oils in the East Coast district amounted to 66,743,000 bbl. on May 31 of this year as compared to 67,733,000 on May 31, 1940. The bureau estimates an increase of about 2,000,000 bbl. in total stocks (500,000 bbl. crude and 1,500,000 bbl. refined) during June as compared to a gain of 5,366,000 bbl. (2,295,000 crude and 3,071,000 refined) in the same month of last year. The retarded rate of seasonal stock increases reflects both the transportation shortage and the high rate of demand, part of which is probably due to an abnormal flow of products to distributor and consumer storage outside the coverage of the bureau's statistics of refinery and bulk terminal stocks."

Domestic demand for motor fuel in August is estimated at 62,500,000 bbl., an increase of 13 per cent over actual demand in August 1940, which was a poor consuming month in comparison with other parts of the summer.

Crude runs to stills at the rate of 3,914,000 bbl. daily will be necessary to meet the bureau's forecast of demand for 54,600,000 bbl. of gasoline.

The increase of 37,600 bbl. daily in the bureau's estimate of crude demand from Texas was the most substantial swing in the August calculations. Details of the crude demand by states follow:

| | Forecast | | Actual |
|---|---|---|---|
| | Aug. 1941 | July 1941 | Aug. 1940 |
| Texas | 1,361,600 | 1,324,000 | 1,201,300 |
| California | 641,000 | 624,800 | 624,300 |
| Oklahoma | 492,400 | 498,500 | 430,500 |
| Illinois | 390,100 | 384,800 | 414,500 |
| Louisiana | 324,500 | 304,000 | 236,000 |
| Kansas | 240,800 | 225,300 | 187,000 |
| New Mexico | 112,900 | 108,600 | 103,800 |
| Wyoming | 85,000 | 88,400 | 80,600 |
| Arkansas | 80,700 | 77,000 | 76,600 |
| Pennsylvania | 48,700 | 49,300 | 45,000 |
| Michigan | 36,000 | 37,200 | 50,300 |
| Mississippi | 25,200 | 21,000 | 12,900 |
| Indiana | 22,100 | 22,200 | 10,100 |
| Montana | 20,000 | 19,900 | 24,800 |
| New York | 14,800 | 15,000 | 13,400 |
| Kentucky | 14,200 | 16,200 | 14,600 |
| West Virginia | 11,000 | 10,800 | 8,100 |
| Ohio | 10,200 | 10,800 | 9,400 |
| Colorado | 4,400 | 5,100 | 2,900 |
| Nebraska | 4,400 | 4,200 | ..... |
| Other | ..... | ..... | 400 |
| Total | 3,940,000 | 3,847,100 | 3,546,500 |

## Oil Movement on Eastern Rivers Suffers Decline

PITTSBURGH, Pa., July 22.—Movement of petroleum products on the Allegheny River here showed an increase in June over May, but traffic on the Monongahela and Ohio rivers declined. Figures for the three rivers are: Allegheny, 4,410,000 gal., increase 30,000; Ohio River, 23,940 gal., decrease of 2,460,000; and Monongahela River, 11,520,000 gal., decrease of 840,000 gal.

# Personal Paragraphs

ERNEST L. McGUFFY has been transferred from the Jackson, Miss., office of United Gas Pipe Line Co. and promoted to the position of senior clerk in the plant reclassification department at Houston, Tex.

DR. GUSTAV EGLOFF, head of research for the Universal Oil Products Co. and international authority on petroleum hydrocarbon chemistry, has been spending considerable time in Washington in the past year. He has just returned to his Chicago offices after a business stay in the capital.

L. R. HOLMES, of the refining department of the Texas Co., with offices in Los Angeles, Calif., recently finished 38 years of uninterrupted service.

HARVEY F. DANGBERG, Shell Oil Co., has been promoted from junior engineer at Los Angeles, Calif., to assistant engineer at Bakersfield in the exploitation department.

G. W. CURRIE, International Petroleum Co., Talara, Peru, is spending a 3-month furlough with Mrs. Currie and family in Petrolia, Ont.

EDGAR B. DAVIS, Luling, Tex., oil man, was victorious in an Ohio law suit adjudicated recently in which relatives of Frank A. Seiberling, Akron rubber man, attempted to obtain control of stock in Ohio Goodyear Securities Co., valued at $634,000.

FRANCIS T. HOPP, secretary and treasurer; HOMER L. ARMSTRONG, assistant traffic manager; R. D. TURNER, gas-measurement department chief; J. W. FOLK, accountant; PERCY Q. PROCTOR, secretary to the president, all of Tulsa, and ADEN A. ROBINETT, in the production office at Bristow, Okla., received 20-year service pins last week from Skelly Oil Co.

MICHAEL L. BENEDUM, of Pittsburgh, Pa., known as "No. 1 Wildcatter," celebrated his seventy-second birthday July 16 and among his presents was a new discovery oil well in Duval County, Texas. In an interview he advocated helping Britain with all the oil they need and declared that this aid would determine finally whether the American people live under a dictatorship or a democracy.

W. S. HOFFMEISTER, geologist, has recently joined the Carter Oil Co. in the southern division at Shreveport, La., after a transfer from Standard Oil Co. of New Jersey interests in Venezuela.

HAROLD E. PORTER, division petroleum engineer in the East Texas division at Tyler, Tex., for the Humble Oil & Refining Co., has been transferred to the Gulf Coast division on special assignment. RILEY A. AUCOIN, petroleum engineer in the East Texas division, has been appointed assistant division petroleum engineer for that territory.

K. BRUCE DAVIDSON, petroleum engineer for Humble Oil & Refining Co., in the East Texas division, was transferred to the North Texas division at Wichita Falls, Tex., effective July 1. Mr. Davidson will be replaced in the East Texas division by JOHN S. BELL, formerly division petroleum engineer at Wichita Falls.

ROY A. REEDER, purchasing agent with the United Gas Pipe Line Co., Shreveport, La., remarked at the company's annual golf tournament that a prize should be offered for the first hole-in-one, and promptly made one on his first hole in the contest. However, it netted him no special prize, nor even low-score honors, in the tournament which was won by FRANK KEITH, a junior accountant at Shreveport.

RICHARD M. DAVIS, chief of a Carter Oil Co. seismograph party now working near Monroe, La., received first prize of $500 from Standard Oil Co. (New Jersey) offered employes for operating ideas that could be put into operation. Mr. Davis' winning suggestion was for a method of making duplicate recordings of reflection seismograph impulses. By his method, the company was able to reduce the number of dynamite detonations from three to one in obtaining reflecting records in a new area.

## Do You Remember?

From The Oil and Gas Journal Files

### 25 YEARS AGO

John F. Black, general superintendent of the Producers Oil Co., died at his home in Tulsa July 23 after a long illness. He lacked 2 days of being 61 years old.

In the oil fields of the Southwest, great numbers of horses are required to do the hauling—and the greater part of the work is done in the hot days of the summer. Many of the suffering animals collapse and die from heat exhaustion when the temperature is excessively high.

Discovery of new wells last year increased the production of crude oil in the Gulf field 57 per cent over 1914. About 900 wells were drilled in the coastal pools during the year.

### 20 YEARS AGO

Pres. R. D. Benson, of the Tide Water Oil Co., in a statement issued 3 weeks ago, expressed the opinion that there would be no further reduction in the market prices of Mid-Continent crude oil.

By arrangement recently made, The Oil and Gas Journal is to keep in touch with the oil development in the Mackenzie River oil field, in the far north.

Japanese oil buyers, according to a Tokyo newspaper, have contracted with the Asano Russan Co. for 22,000 tons of fuel oil which the company purchased from a Mexican company in Tampico.

### 10 YEARS AGO

The big decrease in crude-oil production in Oklahoma due to the shutting in of wells because of low prices for crude oil, and the prospect that additional reductions in output may result from further curtailment, has started the upswing in crude-oil prices.

The Oil States Advisory Council meeting scheduled for August 10 in Denver, Colo., has been postponed until August 24 to permit the attendance of Gov. Ross S. Sterling, chairman of the Texas joint legislative oil committee.

ARTHUR L. HOBSON, JR., of Houston, Tex., has organized the Hobsco Corp., with headquarters at Houston, Tex.

J. W. WEST, chairman of the board of the West Production Co., Houston, Tex., resigned recently as chairman of the Houston City Planning Commission.

OSCAR CHAMPION, Midland, Tex., geologist, has been made head of the West Texas office in that city opened recently by Seaboard Oil Co. of Delaware.

M. A. GRISHAM, independent oil producer of Abilene, Tex., received second-degree burns in a Midland, Tex., hotel July 18. Mr. Grisham, a member of the firm of Grisham & Hunter, received burns on the neck, back and arms.

CLINTON OWSLEY this week became director of production in the Oil and Gas Division of the Texas Railroad Commission. He was promoted from the Gas Utilities Division in which S. W. BREEDING, of Dallas, was named director.

HARRY F. SINCLAIR, New York, president of Consolidated Oil Corp., visited the Mid-Continent and southwestern oil-producing districts last week, traveling by private plane. He spent the night of July 18 in Tulsa and continued to Texas.

P. R. FLAKE, Wichita Falls, Tex., has been appointed district clerk for Continental Oil Co. in that district. Mr. Flake succeeds Harry Glenn, who was murdered earlier this month by a highjacker. GEORGE E. CARTER, of Ponca City, Okla., has been transferred to Wichita Falls and will be assistant chief clerk, the position formerly held by Mr. Flake.

B. A. HARDEY, chairman of the Louisiana Board of Minerals, Baton Rouge, La., is temporarily located at his summer home in Colorado.

ROGER C. YOUNG, independent oil operator of Salem, Ill., is in a Memphis, Tenn., hospital where he is recovering from injuries received recently in an automobile accident near Jonesboro, Ark.

FREDERIC R. PRATT, son of HERBERT L. PRATT, retired chairman of Socony-Vacuum Oil Co., Inc., is chairman of the United Service Organization of New York City. The goal there is $3,600,000 of the $10,765,000 set for the nation.

RALPH L. DUFF, first metallurgist employed by the Standard Oil Co. of New Jersey, has retired after 22 years of service. He was given a dinner recently by 200 fellow workers of the Standard Oil Development Co.

STONE JOHNSON, driller for the Hudson-Hess Drilling Co. of Mount Vernon, Ill., is in the Missouri Baptist Hospital in St. Louis, Mo., as the result of an automobile accident near Wayne City, Ill. Mr. Johnson suffered a brain concussion and other serious injuries.

REECE E. McGEE has resigned from the position of executive vice president, Kansas-Nebraska Natural Gas Co., Inc., and has returned to the contracting business. He is now engaged in constructing the lines called for in the company's expansion program. He has been succeeded by S. D. WHITEMAN, who has recently joined the organization.

MARTIN DEUTH is being moved by Shell Oil Co., Inc., from Childress to Abilene, Tex., to handle subsurface geological work. Shell has moved into a new six-office suite in the Mims Building in Abilene, and with the move other personnel changes have been effected. The paleontological department is in charge of R. C. SPIVEY, with NEAL McDONALD as laboratory assistant. F. J. LaLANNE of Houston has been transferred to Abilene as draftsman. JOE CLINGAN is district scout and CLETA DUTY is clerk.

# Oil, His Heritage

An interest in oil is the heritage of Howard H. West who was recently appointed to the position of assistant to the president of the Ohio Oil Co. He was born at Elizabeth in oil-producing Wirt County, West Virginia, September 3, 1903, and his father was a tool dresser in the then active fields there. Mr. West's oil career began almost 20 years ago and all of it has been in the service of the Ohio Oil Co.

*HOWARD H. WEST*

Three years after his father's death, Mr. West moved with the family to Findlay, Ohio. That was in 1913 and the Wests have resided there since. Mr. West completed his elementary and high school education in Findlay and 4 years after his graduation in 1922 he entered the employ of the Ohio Oil Co. as a stenographer in the purchasing department. In the ensuing 4 years Mr. West served in the map, title and tax and traffic departments, as a stenographer for various officials and a part of 1925 as clerk to the superintendent of the Bridgeport, Ill., plant.

On September 1, 1926, Mr. West was appointed secretary to O. D. Donnell, president of the Ohio Oil Co., and served in that capacity until his recent appointment as assistant to Mr. Donnell. In addition Mr. West is a vice president of the Mountain Fuel Supply Co. and assistant secretary of the Rock River Petroleum Co. and the Ohio-Mexico Oil Corp., S. A.

Mr. West's hobby is Boy Scout work. It is a hobby which he has definitely pursued. He has been a member of the organization since enrolling as a tenderfoot scout in 1917. He held numerous positions up to his election as president of Put-Han-Sen council embracing Putnam, Hancock and Seneca counties. He is a holder of the scout master's key, the Silver Beaver award and, since 1938, a 20-year veteran award. He is an officer of the Findlay Rotary, an elder in the United Presbyterian Church, a member of B.P.O.E. and the Findlay Country Club. He and Miss Helen Louise Fiscus of Findlay were married April 12, 1926, and have two children, David E., 10, and Margaret, 4.

COMER PLUMMER, assistant manager of the producing division, and THERON WASSON, chief geologist, of Pure Oil Co., are now in the Maracaibo area of Venezuela on an inspection tour.

WALTER W. HEATHMAN, a member of the geological department of Union Oil Co., has returned to his office in Los Angeles, Calif., following a 4-month assignment doing geological work in Kansas, Nebraska, Oklahoma, and Texas.

MOSE M. KORNFELD, consulting geologist and paleontologist, has established an office in Alexandria, La., to cover the Wilcox trend in Central Louisiana. JAMES MUSLOW, University of Texas graduate in geology, will be in charge of the office.

J. H. KINSER, geologist for the California Co., is temporarily stationed at Urbana, Ill., where he is doing research work at the Illinois Geological Survey. Mr. Kinser came to Illinois from New Orleans, La., where the company recently established its head offices.

LT. H. A. MORRIS, II, production engineer with Union Producing Co., Shreveport, La., has entered active duty in the U. S. Army at Camp Davis, N. C. He is temporarily replaced in Shreveport by CHARLES A. SULLINS, who was production engineer at Beeville, Tex.

H. L. DAVIS, Illinois district manager for Williams Brothers Corp., pipe-line contractors, and V. H. UPDIKE, both of Flora, Ill., have been temporarily transferred to New Hampshire to supervise construction of the Standard of New Jersey pipe line from Gorham, N. H., to Montreal, Canada.

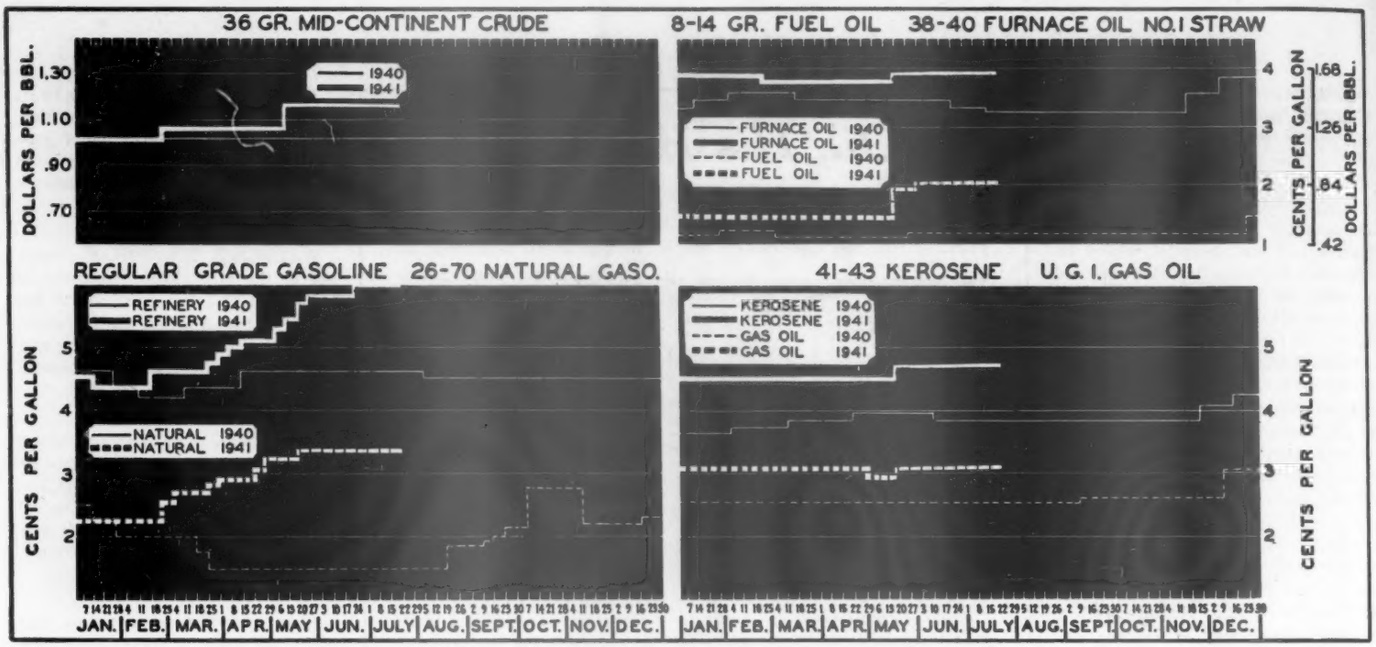
L. O. RIPLEY, who served as president of the Kansas Gas & Electric Co., Wichita, Kans., until his retirement in June 1940, suffered a stroke as he was leaving a choir rehearsal last Sunday. He is now in a Wichita hospital where his condition is serious. Mr. Ripley, since his retirement from the presidency of the utilities company, has been serving as consultant to the firm.

CLAYTON BEAMER, Standard Oil Co. of New Jersey, Bayway, N. J., has been appointed superintendent of the ethyl and isopropyl-alcohol plant now under construction by Standard Oil Co. of Louisiana at Baton Rouge.

Shifts: HERBERT KETELL, president, Kern Valley Drilling Co., from Los Angeles, Calif., to Hollywood, Calif.; J. E. McCALLUM, superintendent, S. H. Richardson, from Levelland, Tex., to Sundown, Tex.; A. P. ROBISHAW, engineer, Republic Production Co., from Silsbee, Tex., to Houston, Tex.; A. R. MATTHEWS, president, Matford Oil Co., from Fort Worth, Tex., to Artesia, N. M.; J. R. REAVES, geologist, Barnsdall Oil Co., from Houston, Tex., to Chevy Chase, Md.; L. D. CASON, engineer, Texas Co., from Houma, La., to Pointe a la Hache, La.; T. E. WALL, geologist, Allied Oil Production Co., from Vandalia, Ill., to Evansville, Ind.; J. F. SCOTT, engineer, Carter Oil Co., from St. Elmo, Ill., to Magnolia, Ark.; DEAN C. GLASS, engineer, Pure Oil Co., from Columbus, Ohio, to Beaumont, Tex.; CLARENCE VOLLMER, Vollmer Co., from De Ridder, La., to Memphis, Tenn.; L. M. FLEMING, engineer, Kaw Pipe Line Co., from Claflin, Kans., to Rochester, Minn.; G. M. ROSS, engineer, Phillips Petroleum Co., from Minneapolis, Minn., to Bridgeport, Conn.; J. F. DARBY, president, Darby Linde Co., from Muskogee, Okla., to Colorado Springs, Colo.; E. A. ROSE, superintendent, Carter Oil Co., from Oklahoma City, Okla., to Great Bend, Kans.

SIR WILLIAM GARTHWAITE, BART., a director of British Controlled Oilfields, Ltd., arrived in the United States last week, returning from South America.

BILL WELCH, who won the National Public Links Golf Tournament at Spokane, Wash., Saturday, is the son of W. M. WELCH, retired oil operator of Tulsa. The senior Welch formerly was vice president and general manager of the Tidal Refining Co. and was one of the founders and the first president of the Natural Gasoline Association of America. Young Welch has worked for oil companies and is now employed by an oil-tool manufacturing firm with headquarters in Houston, Tex.




**Representative Mid-Continent Quotations on Crude Oil and Refined Products, Basis Oklahoma (Group 3)**

# *Advance on High Side of Interior Gasoline Market Is Holding Firm*

By H. STANLEY NORMAN

ANOTHER advance of 0.125 cent per gallon on the high side of the Mid-Continent refinery motor-fuel market, making the quotations range from 6 to 6.25 cents per gallon, appeared to be firmly established this week. Supplies of full specification gasoline are tightly held and sellers retained their dominant position in the market.

Light fuel oil and residual grades rivaled strength of gasoline in their respective market positions. Kerosene was offered a little more freely from some directions this week, according to reports from Chicago, but Mid-Continent refiners considered the demand satisfactory for this season of the year.

### Cracking at High Rate

Mid-Continent refiners continue their operating practice of earlier summer months in running distillate fuel-oil cuts to cracking stills in an effort to supply the uninterrupted demand for motor fuel. This operating procedure has indicated a trend to a more closely coupled relationship between seasons and demand. Normally, refiners are in position to build inventories of burning products at a higher proportion of crude runs than is indicated for this summer. Result likely to be that refiners will be called upon to balance their operations against current seasonal conditions in contrast to production of fuel oils in the summer for winter consumption and motor fuel in the winter for summer demand.

There has been no direct effort reported in the Mid-Continent to place a ceiling on product prices such as Leon Henderson, chief of the Office of Price Administration and Civilian Supply, has imposed on the Gulf Coast. However, interior refiners are familiar with the general attitude of Mr. Henderson opposing petroleum-product price advances without prior consultation.

### Refined Oil Market Barometer

Pegging of the Gulf Coast refinery gasoline markets at a base price of 6 cents per gallon was the week's outstanding development in petroleum markets. Heretofore, the Office of Price Administration and Civilian Supply has dealt more specifically with tank-wagon conditions. Mid-Continent refinery gasoline was quoted 0.125 cent per gallon higher on the top side of the market.

**MID-CONTINENT:** Gasoline higher. Other products firm.

**GULF COAST:** Distillate fuel-oil prices slightly softer.

**CALIFORNIA:** Fuel oils strong. Gasoline position improving.

**PENNSYLVANIA:** Demand strong for all products.

**CHICAGO:** Residual grades of fuel and gasoline stronger.

The advance of 0.125 cent per gallon on the high side of the regular gasoline tank-car market developed late last week just before Mr. Henderson requested Gulf Coast refiners to halt their upward trend of gasoline prices at a base price of 6 cents. The order which placed a ceiling on Gulf Coast gasoline prices for all practical purposes was obviously related to the East Coast supply situation. Still, Mr. Henderson has issued direct requests for price curbs to petroleum suppliers in the Pacific Coast, the Middle West, East Coast and the Gulf Coast. The request that Gulf Coast refiners consider 6 cents per gallon as the base price for regular gasoline is the most direct market-control effort made so far by the O.P.A.C.S. The most significant point in the Gulf Coast request is that it applies directly to primary markets, whereas earlier efforts were directed more specifically to control of tank-wagon prices.

### Octane Hike Opposed

Inland refiners have taken a definite stand against the suggestion that 91 octane become the standard for premium motor fuel. Consideration of this move has been given in Washington, according to reports, since it would qualify regular stocks in the hands of service-station operators throughout the country to refuel mechanized units of the armed forces. Arguments against the suggestion are advanced that few modern automobile engines are qualified to consume 91 octane fuel and that adoption of this specification for premium gasoline would impose a useless and expensive burden on refiners.

Major companies are active purchasers in the open gasoline market during the past few weeks and are still seeking additional supplies. They are purchasing, according to reports in the trade, for two reasons. One reason is that some of the companies need to augment their local supplies in meeting the record demand and others are purchasing, when material is available, in anticipation of shortages during the later summer months.

Offerings of gasoline on the Mid-Continent spot market are strictly limited. Buyers are forced to comb the entire list of sources and even this practice is not always successful in locating the desired volume.

Lubricating oils are maintaining their strong position. Refiners have been unable to catch up with orders although producing facilities in the Mid-Continent have been used to the maximum extent.

# Pegging of Gulf Coast Prices to Check East Coast Advances

By J. P. O'DONNELL

NEW YORK, July 22.—The request addressed by Leon Henderson, administrator of the Office of Price Administration and Civilian Supply, to Gulf Coast refiners asking them to maintain a base price of 6 cents per gallon for gasoline will tend to curb advances in the East. The East Coast, dependent almost entirely on the gulf for supplies, is affected largely by the gulf market. Establishment of a ceiling on gulf prices will deprive the East of the influence to higher primary markets.

While gasoline, kerosene and light fuel oil continue to hold a strong position, the only price improvement in the East Coast market has been in residual fuel oil. Bunker C fuel oil is now quoted at $1.45 to $1.55 in the spot market, a 10-cent-per-barrel increase from previous quotations. Prices on No. 6 fuel oil had been expected to advance for some time as a result of the abnormally high demand this year.

Heavy fuel-oil demand in the East Coast district is expected to run close to 18 per cent above last year in the third quarter of 1941 to meet the requirements of national-defense plants. This demand totaled 30,456,000 bbl. in the third quarter of last year so that the indicated increase will boost this year's total to 35,900,000 bbl. An even higher demand is forecast for the fourth quarter when it is expected to reach an all-time high of more than 44,700,000 bbl.

As a result of this record demand and the reduction in transportation facilities, stocks of residual fuel oil on the East Coast actually declined during the second quarter, normally a season of lowest demand. Residual fuel-oil stocks increased in the second week of July when they moved up 350,000 bbl. but despite this gain they were still lower by 403,000 bbl. on July 12 than on March 29. During this period last year, stocks rose approximately 2,600,000 bbl. From present indications this shortage will grow more acute later in the year, particularly in the fourth quarter when demand is expected to jump close to 25 per cent above midyear levels.

Motor fuel of 72-74 octane is nominally quoted at 8.5 cents in the New York Harbor area though the proportion of spot-market transactions is low. While all prices have been more or less frozen at the request of the O.P.A.C.S., gasoline is the only product to have shown an appreciable increase since the first of the year. Today's motor-fuel prices in the New York Harbor area are approximately 3 cents above those which ruled at the opening of the year. Stabilization of Gulf Coast prices removes this influence as a factor for further increases and leaves higher transportation costs as the only justification for higher prices in the eyes of the O.P.A.C.S.

Other major products have shown little advance in comparison to first-of-the-year prices. The kerosene price, now 5.5 cents, is the same as existed on January 1; No. 2 fuel oil is up 0.35 cent from 4.9 cents; Bunker C is up 20 cents to $1.45 per barrel and diesel oil is unchanged at $2 per barrel. Because of the increase in transportation costs that is in prospect for the coming months, further price advances for East Coast products are viewed as justified.

East Coast gasoline stocks regained some of the ground lost during the July 4 week end when they rose 666,000 bbl. They are still slightly lower than a year ago but the difference on the basis of days' supply is considerably greater. Light fuel-oil stocks also increased in the second week of July, rising 800,000 bbl. to 10,835,000 bbl. However, this is considerably higher than the average since the end of March, a rate which will have to be stepped up considerably to provide adequate supplies by the opening of the fuel-oil season. If the rate of light fuel-oil stock increase is not accelerated, the total on September 30, 1941, will be but half of that of a year ago.

The anticipated advance in Pennsylvania bright stocks took place last week when quotations of 25-pour material were advanced to a range of 24 to 25 cents and 10-pour material was quoted at 27.5 cents, an increase of 1 cent from previous quotations. Reports of a number of sales at 24.5 cents for 25-pour bright stock indicate that another advance is to be expected. Cost and the current condition of the market warrant another advance in bright-stock prices, according to the view of some observers who confidently predict that it will reach 25 cents within a short time.

Meanwhile, as complete relief from the prospective shortage of oil products becomes less certain, steps are geing taken to curtail consumption. In six-column ads in metropolitan papers, the oil-burner industry asked owners of home-heating units to cooperate in a "save for defense" program. It urged cleaning of heating plants, checking the combustion efficiencies, installation of accurate thermostatic controls and the use of storm sashes and insulation. Savings as great as 25 per cent are declared possible. Emblems will be issued to homes cooperating in the campaign.

A possible indication of what steps will be taken in the eastern United States when the supply situation becomes more acute was seen in the Canadian order closing service stations from 7 p.m. to 7 a.m. on week days and 24 hours Sundays. It is possible that if the steps taken in Canada prove effective, similar measures will be adopted in this country. Canada's objective is a 50 per cent reduction in consumption. In addition to the service-station closing, gasoline prices were advanced 1 cent per gallon in an effort to discourage consumption.

## Uncertainty Noted Under Surface of Coast Market

HOUSTON, Tex., July 22.—A slight touch of uncertainty was noted under the cover of the Gulf Coast refinery market the past week. This was reflected most conspicuously in gas oils and fuel oils, where there was some evidence of price softening. Gasoline quotations remained firm in the wake of the recent heavy buying spurt, but the proposal of the Office of Price Administration and Civilian Supply for limitation of price of 80 research gasoline to 6 cents is causing some concern in view of the fact that the minimum quotation for that material now is 6¼ cents.

At the same time, despite the recent buying which was reported to have cleaned up practically all the available gasoline on the Gulf Coast, there still are available for purchase several additional cargoes in independent hands. Coupled with this, trading was inactive during the week, although movement on previous sales was steady, bringing relief to crowded storage facilities of the independents.

No. 2 fuel (gas oil) could be obtained Monday for 3¼ cents from some sources, which was a shade under bottom quotations a week ago.

It also was reported residual fuel was available at concessions. One source stated Bunker C has been offered under 85 cents which has been the prevailing quotation for some time.

Kerosene is firm at 3½ cents.

## *A.P.I. Weekly Refinery Statistics*

**Week Ended July 19, 1941**

| | Capacity reporting (per cent) | Total gasoline stocks (bbl.) | Residual fuel-oil stocks (bbl.) | Gas oil and distillate stocks (bbl.) | Daily crude runs (bbl.) |
|---|---|---|---|---|---|
| East Coast | 100.0 | 21,932,000 | 8,775,000 | 11,511,000 | 570,000 |
| Appalachian | 83.8 | 3,003,000 | 536,000 | 425,000 | 137,000 |
| Ind., Ill., and Ky. | 84.4 | 16,534,000 | 3,840,000 | 4,207,000 | 638,000 |
| Okla., Kans., and Mo. | 80.7 | 6,837,000 | 2,075,000 | 1,515,000 | 298,000 |
| Inland Texas | 63.2 | 2,190,000 | 1,266,000 | 381,000 | 147,000 |
| Texas Gulf | 91.0 | 11,549,000 | 7,980,000 | 6,830,000 | 906,000 |
| Louisiana Gulf | 89.1 | 3,310,000 | 1,347,000 | 1,490,000 | 146,000 |
| N. Louisiana and Ark. | 49.9 | 392,000 | 458,000 | 233,000 | 46,000 |
| Rocky Mountains | 50.1 | 1,402,000 | 492,000 | 139,000 | 62,000 |
| California | 90.9 | 14,721,000 | 64,807,000 | 11,181,000 | 515,000 |
| Total reported | 86.3 | 81,870,000 | 91,576,000 | 37,912,000 | 3,465,000 |
| Est. unreported | ..... | 6,050,000 | 1,515,000 | 820,000 | 340,000 |
| *Est. total | ..... | †87,920,000 | 93,091,000 | 38,732,000 | 3,805,000 |
| *Est. total previous wk. | ..... | 89,561,000 | 92,699,000 | 37,812,000 | 4,090,000 |
| *July 18, 1940 | ..... | 90,954,000 | 105,499,000 | 36,968,000 | 3,540,000 |

*Bureau of Mines. †Includes 7,740,000 bbl. aviation gasoline.

## Stocks of Crude Oil in the United States

(BUREAU OF MINES ESTIMATE)

| | |
|---|---|
| Week ended July 12, 1941 | 255,567,000 barrels |
| Week ended July 5, 1941 | 258,070,000 barrels |
| Week ended July 13, 1940 | 261,494,000 barrels |

Figures do not include stocks of heavy, unrefinable California crude.

# RETAIL OIL MARKETS...

Tank-wagon and filling-station prices on gasoline and kerosene furnished by larger marketing firms

Prices as of July 22, 1941

### Taxes

The gasoline quotations given in the following tables include the 1½-cent federal tax, as well as state, county, and city taxes. The gasoline is the regular or standard grade. In most areas lower grades and a premium grade also are available.

### Standard Oil Co. (Indiana)

| | Gasoline Tank wag. | Dir. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| Chicago, Ill. | 16.1 | 14.1 | 4.5 | 10.3 |
| Decatur | 13.9 | 13.4 | 4.5 | 9.0 |
| Joliet | 16.4 | 13.6 | 4.5 | 10.3 |
| Peoria | 16.2 | 14.2 | 4.5 | 10.1 |
| Quincy | 14.9 | 11.9 | 4.5 | 10.0 |
| Davenport, Ia. | 16.2 | 14.7 | 4.5 | 10.1 |
| Des Moines | 15.9 | 12.9 | 4.5 | 9.8 |
| Mason City | 16.2 | 14.7 | 4.5 | 10.1 |
| Duluth, Minn. | 17.7 | 16.2 | 5.5 | 10.6 |
| Mankato | 17.4 | 15.9 | 5.5 | 10.3 |
| Minneapolis | 17.4 | 15.9 | 5.5 | 10.3 |
| La Crosse, Wis. | 17.4 | 15.9 | 5.5 | 10.3 |
| Green Bay | 17.7 | 16.2 | 5.5 | 10.6 |
| Milwaukee | 17.6 | 16.1 | 5.5 | 10.5 |
| Detroit, Mich. | 15.9 | 14.4 | 4.5 | 9.6 |
| Grand Rapids | 15.9 | 14.4 | 4.5 | 9.6 |
| Saginaw | 15.9 | 14.4 | 4.5 | 9.6 |
| Evansville, Ind. | 16.9 | 15.4 | 5.5 | 9.6 |
| Indianapolis | 17.1 | 15.2 | 5.5 | 9.8 |
| South Bend | 17.5 | 16.0 | 5.5 | 10.2 |
| Fargo, N. D. | 18.4 | 16.9 | 5.5 | 11.3 |
| Huron, S. D. | 17.8 | 16.3 | 5.5 | 10.7 |
| Kansas City, Mo. | 14.4 | 12.9 | 4.5 | 9.1 |
| St. Louis | 14.4 | 12.9 | 4.5 | 9.8 |
| St. Joseph | 15.7 | 14.2 | 4.5 | 8.9 |
| Wichita, Kans. | 14.8 | 12.7 | 4.5 | 8.0 |

*State tax 2 cents, 1-cent city tax, and 1½-cent federal tax.

Exclusive of state general sales taxes.

Discounts to commercial consumers. On purchases per month off tank-wagon prices: 1,000 gal. or more, 1.5 cents off, minimum delivery 25 gal.

### Stanolex Fuel Oil in Chicago

Effective July 17, 1941, f.o.b. Chicago, tank-wagon prices: Standard heater oil, 1-99 gal., 8.75 cents; 100-149 gal., 7.75 cents; 150 gal. and over, 7.25 cents. Stanolex fuel oil No. 1, 1-99 gal., 8.5 cents; 100-149 gal., 7.5 cents; 150-399 gal., 7.25 cents; 400 gal. and over, 6.75 cents. Stanolex furnace oil, 1-99 gal., 8.5 cents; 100-149 gal., 7.5 cents; 150-399 gal., 7.25 cents; 400 gal. and over, 6.75 cents. Stanolex fuel oil A, 1-99 gal., 8.0 cents; 100-399 gal., 7.0 cents; 400-749 gal., 6.0 cents, 750 gal. and over, 5.25 cents. Stanolex fuel oil B, 1-99 gal., 8.0 cents 100-399 gal., 7.0 cents; 400-749 gal., 6.0 cents; 750 gal. and over 5.25 cents. Stanolex Bunker C fuel oil, 1-399 gal., 6.5 cents; 400-999 gal., 5.5 cents; 1,000 gal. and over, 4.5 cents.

### Ohio

STANDARD OIL CO. OF OHIO

| | Gasoline Cons'r tank wag. | Dis-tributed dir. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| Ohio points | 16.0 | 15.0 | 5.5 | *9.0 |

*Includes state tax of 1 cent.

### Southern District

STANDARD OIL CO. (KENTUCKY)

| | Gasoline Cons'r tank wag. | Net dir. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| Atlanta, Ga. | 17.75 | 17.75 | 7.5 | 10.0 |
| Augusta | 17.75 | 17.75 | 7.5 | 9.5 |
| Macon | 17.75 | 17.75 | 7.5 | 10.0 |
| Savannah | 16.75 | 16.75 | 7.5 | 9.0 |
| Birmingham | 18.25 | 18.25 | 8.5 | 8.0 |
| Mobile | 18.25 | 18.25 | 9.5 | 8.5 |
| Montgomery | 19.25 | 19.25 | 9.5 | 10.0 |
| Jackson, Miss. | 16.75 | 16.75 | 7.5 | 9.0 |
| Vicksburg | 16.75 | 16.75 | 7.5 | 8.5 |
| Jacksonville, Fla. | 17.75 | 17.75 | 8.5 | 8.0 |
| Miami | 17.75 | 17.75 | 8.5 | 8.0 |
| Pensacola | 18.25 | 18.25 | 9.5 | 8.0 |
| Tampa | 17.75 | 17.75 | 8.5 | 8.0 |
| Lexington, Ky. | 16.75 | 16.75 | 6.5 | 9.0 |
| Covington | 15.0 | 15.0 | 6.5 | 9.0 |
| Louisville | 16.25 | 16.25 | 6.5 | 8.5 |
| Paducah | 16.25 | 16.25 | 6.5 | 8.5 |

Price basis to tank-wagon consumers, effective January 4, 1937, 3 cents per gallon below tank-wagon price.

Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax, and 1 cent per gallon on kerosene. Mobile, Ala., has a city gasoline tax of 2 cents per gallon; Birmingham, Ala., has a city gasoline tax of 1 cent per gallon; Pensacola, Fla., has a city gasoline tax of 1 cent. All are included in the table.

### Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

| | Gasoline Cons'r tank car | Dir. tank wag. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| Atlantic City | 13.0 | 14.0 | 4.5 | 7.8 |
| Newark | 13.0 | 14.0 | 4.5 | 7.8 |
| Annapolis | 13.85 | 15.35 | 5.5 | 9.5 |
| Baltimore | 13.25 | 14.75 | 5.5 | 8.5 |
| Cumberland | 14.65 | 16.15 | 5.5 | 10.0 |
| Washington, D. C. | 11.50 | 13.00 | 3.5 | 9.0 |
| Danville, Va. | 15.45 | 17.45 | 6.5 | 10.25 |
| Norfolk | 14.25 | 16.25 | 6.5 | 10.00 |
| Petersburg | 14.55 | 16.55 | 6.5 | 11.00 |
| Richmond | 14.55 | 16.55 | 6.5 | 11.00 |
| Roanoke | 15.75 | 17.75 | 6.5 | 10.50 |
| Charles'n, W. Va. | 15.55 | 18.05 | 6.5 | 11.5 |
| Parkersburg | 14.85 | 17.35 | 6.5 | 11.2 |
| Wheeling | 15.25 | 17.35 | 6.5 | 11.8 |
| Charlotte, N. C. | 17.40 | 18.90 | 7.5 | 9.3 |
| Hickory | 17.95 | 19.45 | 7.5 | 10.3 |
| Mount Airy | 17.80 | 19.30 | 7.5 | 9.5 |
| Raleigh | 17.15 | 18.65 | 7.0 | 10.3 |
| Salisbury | 17.45 | 18.95 | 7.5 | 10.7 |
| Charleston, S. C. | 15.25 | 17.75 | 7.5 | 9.25 |
| Columbia | 16.10 | 18.60 | 7.5 | (*) |
| Spartanburg | 16.80 | 19.30 | 7.5 | (*) |

Price basis to Essolene undivided dealers: Dealer tank-wagon price less 0.5 cent per gallon. Price basis to commercial consumers, effective March 8, 1937, in Maryland, District of Columbia, and in Arlington and Fairfax counties in Virginia and March 12 in New Jersey: To contract accounts purchasing at least one full compartment at a time by hose connection, on yearly purchases: From 2,500 to 100,000 gal., consumer tank-wagon price at time and place of delivery: 100,000 gal. per year, consumer tank-car price plus 0.5 cent per gallon. Consumer tank-wagon price generally will be equivalent to dealer tank-wagon price less 0.5 cent per gallon.

Effective January 16, 1939, in North Carolina the commercial consumer schedule became as follows: Single deliveries of 50 gal. or more, consumer tank-wagon price. Single deliveries of less than 50 gal., 4 cents per gallon over consumer tank-wagon price. Generally the posted consumer tank-wagon price will be equivalent to the dealer price, less 0.5 cent per gallon. The above policy also applies in South Carolina, effective January 23, 1939.

*Kerosene business of the company at these points now exclusively handled by dealers.

### Pennsylvania and Delaware

ATLANTIC REFINING CO.

| | Gasoline Cons'r tank car | Dir. tank wag. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| Philadelphia, Pa. | 14.0 | 15.0 | 5.5 | 10.0 |
| Pittsburgh | 14.5 | 15.5 | 5.5 | 10.5 |
| Allentown | 14.5 | 15.5 | 5.5 | 10.5 |
| Erie | 14.5 | 15.5 | 5.5 | 10.0 |
| Scranton | 14.5 | 15.5 | 5.5 | 10.5 |
| Altoona | 14.5 | 15.5 | 5.5 | 10.5 |
| Dover, Del. | ... | 15.5 | 5.5 | 10.5 |
| Wilmington | ... | 15.0 | 5.5 | 10.0 |

Price basis to undivided dealers, dealer tank-wagon price less 0.5 cent per gallon.

Discount on kerosene, 2 cents per gallon off tank-wagon price on tank-wagon deliveries of 25 gal. or more at one time.

### Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

| | Gasoline Tank truck | Serv. sta. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| San Francisco | 17.5 | 18.5 | 4.5 | 11.5 |
| Los Angeles | 17.0 | 18.0 | 4.5 | 10.0 |
| Fresno, Calif. | 18.5 | 19.5 | 4.5 | 12.5 |
| Phoenix, Ariz. | 21.5 | 22.5 | 6.5 | 12.5 |
| Reno, Nev. | 20.5 | 21.5 | 5.5 | 13.5 |
| Portland, Ore. | 20.0 | 21.0 | 6.5 | 13.5 |
| Seattle, Wash. | 20.0 | 21.0 | 6.5 | 13.5 |
| Spokane | 21.5 | 22.5 | 6.5 | 16.5 |
| Tacoma | 20.0 | 21.0 | 6.5 | 13.5 |

Discount to dealers: On gasoline, off tank-wagon price, to 100 per cent dealers, 3 cents. To commercial consumers: On tank-wagon price; on single deliveries of 40 gal. and over, advance quantity discount extended at time of delivery, 3 cents. Service-station schedule applies on single deliveries less than 40 gal. On kerosene in tank-car, transport-truck, and trailer delivery, 3 cents off tank-wagon price; plant deliveries to jobbers, 2.5 cents below tank wagon.

March 18, 1939, split dealer discount was canceled.

### New York and New England

SOCONY-VACUUM OIL CO., INC.

| | Gasoline Comm. tank wag. | Dir.* tank wag. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| Albany | 14.2 | 14.7 | 5.5 | 7.6 |
| Met. New York | 14.4 | 14.9 | 5.5 | 7.9 |
| Buffalo | 14.5 | 15.0 | 5.5 | 8.3 |
| Rochester | 15.1 | 15.6 | 5.5 | 8.8 |
| Syracuse | 14.8 | 15.3 | 5.5 | 8.7 |
| Portland, Me. | 14.6 | 15.1 | 5.5 | 8.0 |
| Manchester, N. H. | 15.6 | 16.1 | 5.5 | 8.9 |
| Burlington, Vt. | 15.2 | 15.7 | 5.5 | 8.2 |
| Boston, Mass. | 13.2 | 13.7 | 4.5 | 7.9 |
| Worcester | 13.8 | 14.3 | 4.5 | 8.0 |
| Hartford, Conn. | 13.9 | 14.4 | 4.5 | 7.5 |
| New Haven | 13.3 | 13.8 | 4.5 | 6.8 |
| Providence, R. I. | 13.3 | 13.8 | 4.5 | 7.7 |

*Undivided.

Effective August 8, 1940, the company changed its commercial consumer policy in New York and New England to the following:

Full compartment deliveries: Accounts buying less than 20,000 gal. annually, 0.5 cent above the commercial-consumer price; accounts buying from 20,000 to 120,000 gal. annually, commercial-consumer price; accounts buying 120,000 gal. annually and above, 0.25 cent off consumer price. Split compartment deliveries: Delivery of less than a full compartment, 250 gal., commercial-consumer price plus 1 cent. Steel-barrel deliveries: Commercial price plus 3 cents.

### Rocky Mountain District

CONTINENTAL OIL CO.

| | Gasoline Tank wag. | Inc. tax | Kero. tank wag. |
|---|---|---|---|
| Denver, Colo. | 14.5 | 5.5 | 11.0 |
| Grand Junction | 18.0 | 5.5 | 12.5 |
| Pueblo | 14.5 | 5.5 | 9.5 |
| Casper, Wyo. | 17.0 | 5.5 | 12.0 |
| Cheyenne | 16.0 | 5.5 | 11.5 |
| Billings, Mont. | 18.0 | 6.5 | 12.5 |
| Butte | 17.0 | 6.5 | 13.5 |
| Great Falls | 17.0 | 6.5 | 12.5 |
| Helena | 17.0 | 6.5 | 13.0 |
| Salt Lake, Utah | 18.5 | 6.5 | 14.5 |
| Boise, Idaho | †20.1 | 6.5 | 16.5 |
| Twin Falls | †21.1 | 6.5 | 17.0 |
| Albuquerque, N. M. | *17.5 | 7.0 | 10.0 |
| Roswell | *15.5 | 7.0 | 8.5 |
| Santa Fe | ‡18.0 | 7.5 | 10.0 |

*Includes city tax of 0.5 cent. †Includes toll-bridge tax of 1 mill. ‡Includes city tax of 1 cent.

Tank wagon represents price to consumers. Dealer represents price to dealers. If no dealer price is quoted, the tank-wagon price applies to all classes of trade.

### Central South District

STANDARD OIL CO. OF LOUISIANA

| | Gasoline Cons'r tank car | Dir. tank wag. | Inc. tax | Kero. tank wag. |
|---|---|---|---|---|
| New Orleans, La. | 15.25 | 17.25 | 8.5 | ‡10.0 |
| Baton Rouge | 15.25 | 17.25 | 8.5 | ‡10.5 |
| Alexandria | 15.25 | 17.25 | 8.5 | ‡10.5 |
| Lafayette | 15.50 | 18.00 | 8.5 | ‡10.0 |
| Lake Charles | 15.50 | 18.00 | 8.5 | ‡10.0 |
| Shreveport | 14.50 | 17.00 | 8.5 | 10.0 |
| Knoxville, Tenn. | 18.00 | 20.50 | 8.5 | 12.5 |
| Memphis | 16.25 | 18.75 | 8.5 | 10.5 |
| Chattanooga | 18.50 | 19.5 | 8.5 | 11.0 |
| Nashville | 17.75 | 19.5 | 8.5 | 10.0 |
| Bristol | 18.25 | 18.75 | 8.5 | 12.0 |

Essolene at dealer price less 0.5 cent per gallon to undivided dealers.

‡Includes 1-cent state tax.

Price basis to commercial consumers: Effective May 15, 1937, deliveries of 50 gal. or more in one territory take posted consumer tank-wagon price. Accounts taking deliveries of less than 50 gal. at one time pay posted consumer tank-wagon price plus 4 cents per gallon. Generally, the posted consumer tank-wagon price will be equivalent to the dealer price less 0.5 cent per gallon. Kerosene prices include 1-cent state tax.

Effective February 24, 1939, the company reestablished in New Orleans the commercial consumer policy on motor fuel effective in the rest of the state.

Effective December 12, 1938, the company revised its commercial consumer policy on motor fuel in New Orleans, as follows: Single deliveries of less than 50 gal., consumer tank car plus 2 cents per gallon 50 to 199 gal., consumer tank car plus 1 cent per gallon; 200 gal. and over, consumer tank car plus 0.5 cent per gallon.

### Oklahoma and Arkansas

CONTINENTAL OIL CO.

| | Gasoline Tank wag. | Incl. tax | Kero. tank wag. |
|---|---|---|---|
| Texarkana, Ark. | 14.0 | 5.5 | 6.0 |
| Fort Smith | 15.5 | 7.0 | 6.5 |
| Little Rock | 17.25 | 8.0 | 8.0 |
| Muskogee, Okla. | 15.5 | 7.0 | 8.0 |
| Oklahoma City | 15.0 | 7.0 | 8.0 |
| Tulsa | 15.0 | 7.0 | 8.0 |

Tank wagon represents price to consumers. If no dealer price is quoted, the tank-wagon price applies to all classes of trade.

### Nebraska

STANDARD OIL CO. OF NEBRASKA

| | Gasoline Tank wag. | Dir. | Incl. tax | Kero. tank wag. |
|---|---|---|---|---|
| Omaha | 17.0 | 14.4 | 6.5 | 9.8 |
| McCook | 18.5 | 15.4 | 6.5 | 9.5 |
| Norfolk | 18.4 | 16.9 | 6.5 | 10.3 |
| North Platte | 18.8 | 15.9 | 6.5 | 10.7 |
| Scottsbluff | 18.4 | 15.5 | 6.5 | 10.0 |

Discounts to commercial consumers for tank-wagon deliveries covered only by standard commercial consumers contract, effective January 1, 1935.

### Texas

| | Gasoline Tank wag. | Serv. sta. | Incl. tax | Kero. tank wag. |
|---|---|---|---|---|
| Dallas, Tex. | 13.0 | 16.5 | 5.5 | 7.0 |
| Fort Worth | 13.0 | 16.5 | 5.5 | 7.0 |
| Houston | 13.0 | 17.0 | 5.5 | 8.0 |
| San Antonio | 13.0 | 17.0 | 5.5 | 8.0 |

### Naphtha

STANDARD OIL CO. (INDIANA)

| | Tank wagon* |
|---|---|
| Oleum spirits | 16.2 |
| V.M.&P. naphtha | 16.5 |
| Cleaners' naphtha | 15.5 |
| Stanisol | 15.5 |

*Prices include 3-cent Illinois tax but not 1-cent federal tax nor 2 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gal. lots if covered by contract.

### Canada

3-Star Imperial Gasoline

IMPERIAL OIL, LTD.

| | Gasoline Tank wag. | Incl. tax | Kero. tank wag. |
|---|---|---|---|
| Halifax, N. S. | 25.5 | 10.0 | 19.0 |
| St. John, N. B. | 25.5 | 10.0 | 19.0 |
| Montreal, Que. | 25.0 | 8.0 | 17.5 |
| Toronto, Ont. | 25.5 | 8.0 | 18.0 |
| Hamilton, Ont. | 25.5 | 8.0 | 18.0 |
| Winnipeg, Man. | 28.5 | 7.0 | 23.5 |
| Brandon, Man. | 29.0 | 7.0 | 23.5 |
| Regina, Sask. | 26.0 | 7.0 | 21.0 |
| Saskatoon, Sask. | 21.8 | 7.0 | 23.8 |
| Edmonton, Alta. | 26.9 | 7.0 | 21.0 |
| Calgary, Alta. | 24.0 | 7.0 | 19.0 |
| Vancouver, B. C. | 22.0 | 7.0 | 24.0 |

## Tank-Wagon Changes

Standard Oil Co. (Indiana) advanced tank-wagon and dealer gasoline prices 0.5 cent per gallon in Chicago, effective July 18, and raised the dealer quotation at Decatur, Ill., 1 cent per gallon July 11. The company advanced fuel-oil tank-wagon prices at Chicago 0.25 cent per gallon on July 17.

Imperial Oil, Ltd., Toronto, Canada, advanced the posted tank-wagon price for regular gasoline and kerosene 1 cent per gallon July 16 throughout Canada.

## Synthetic Rubber Reduced

The price of synthetic rubber manufactured from petroleum gases has been reduced to 70 cents per pound, a cut of 15 cents, it was announced in New York this week.

Most of the current production of synthetic rubber is going into defense products and the remainder into specialties. Standard Oil Co. of Louisiana's plant at Baton Rouge, La., is currently producing 1,800 tons a year and another plant is under construction that will be in operation early next year.

# PRICES OF REFINED PRODUCTS...

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of July 22, 1941
(Most prices in cents per gallon)

The quotations are exclusive of the federal excise taxes of 1.5 cents a gallon on gasoline and 4 cents a gallon on lubricating oils. Octane ratings in Middle West, Mid-Continent, and Southwest are based on A.S.T.M. method of testing.

## Refinery Gasoline

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 72-74 octane (regular) | .06 | .0625 |
| 63-66 octane | .05625 | .05875 |
| 60 octane and below | .0525 | .055 |
| 60-62 400 grades: | | |
| 72-74 octane (regular) | .06 | .0625 |
| 63-66 octane | .05625 | .05875 |
| 60 octane and below | .0525 | .055 |

**NORTH TEXAS—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 72-74 octane (regular) | .05875 | .06125 |
| 63-66 octane | .0550 | .06 |
| 60 octane and below | .05125 | .05375 |
| 60-62 400 | .05 | .06 |

**NORTH LOUISIANA (Ark. and N. La. delivery)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 72-74 octane (regular) | .05875 | .06125 |
| 63-66 octane | .0550 | .05875 |
| 60 octane and below | .05 | .06 |

**ARKANSAS (Ark. and N. La. del.)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 72-74 octane (regular) | .05875 | .06125 |
| 60 octane and below | .05 | .05375 |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 72-74 octane (regular) | .06 | .0625 |
| 63-66 octane | .05625 | .05875 |
| 60 octane and below | .0525 | .055 |
| 60-62 400 grades: | | |
| 72-74 octane (regular) | .06 | .0625 |
| 63-66 octane | .05625 | .05875 |
| 60 octane and below | .0525 | .055 |

**PENNSYLVANIA (inland refineries)—**

| | | |
|---|---|---|
| 74-76 octane (regular) | .0750 | .0775 |
| 80 octane (1939 Research) | | .0800 |

**CALIFORNIA (domestic movement)—**

| | | |
|---|---|---|
| 58-60 400, 65 oct. and higher | .06 | .07 |
| 54-58 U. S. Motor | .0575 | .0625 |

**EAST COAST (domestic)—**

| | | |
|---|---|---|
| U. S. Motor (minimum 72 octane): | | |
| New York (Bayonne)* | .075 | .080 |
| Philadelphia | | .080 |
| Boston | | .082 |
| Baltimore | | .070 |
| Charleston, S. C. | | .075 |

*All grades of gasoline ⅛ to ¼ cent less for barge shipments. New York Harbor prices are for New York and New England delivery. Prices for New Jersey delivery ¼ cent lower.

**GULF COAST (domestic)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 80 (research) | | .0625 |
| 72-74 octane (leaded) | .0575 | .05875 |
| 70-72 octane (unleaded) | .05875 | .06 |
| 68-70 octane (unleaded) | .05625 | .05875 |

## Natural Gasoline

**OKLAHOMA (Group 3)—**

| | |
|---|---|
| Grade 26-70 | .03375 |
| Grade 18-55 | .04 |

**NORTH TEXAS—**

| | |
|---|---|
| Grade 26-70 | .0325 |
| Grade 18-55 | .0375 |

**CALIFORNIA—**

| | | |
|---|---|---|
| 75-85 375-390 | .045 | .05 |

**NORTH LOUISIANA (Ark. and N. La. delivery)—**

| | |
|---|---|
| Grade 26-70 | .0325 |

## Tractor Fuel

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| 40-42 gr., 315-325 l.b.p., 110-flash, 540-550 e.p. | .0375 | .03875 |
| 41-43 gr., 300-320 l.b.p., 110-125 flash, 500-520 e.p. | .03875 | .04 |
| 46-48 gr., 210-230 l.b.p., 480 max, e.p. | .04125 | .0425 |

## Kerosene
(All kerosene water white)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| 42-44 | .0450 | .0475 |
| 41-43 | .04375 | .04625 |

**NORTH TEXAS—**

| | | |
|---|---|---|
| 41-43 | .0425 | .04625 |

**NORTH LOUISIANA (Ark. and N. La. delivery)—**

| | | |
|---|---|---|
| 41-43 | .04375 | .04625 |

**ARKANSAS (Ark. and N. La. del.)—**

| | | |
|---|---|---|
| 41-43 | .04375 | .04625 |

**PENNSYLVANIA (inland refineries)—**

| | | |
|---|---|---|
| 46 | .0575 | .06125 |
| 45 | .0575 | .06 |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| 42-44 | .0450 | .0475 |
| 41-43 | .04375 | .04625 |

**CALIFORNIA (Pac. Coast market)—**

| | | |
|---|---|---|
| 38-40 high-burning test | .045 | .055 |

**NEW YORK (Bayonne, N. J.)—**

| | |
|---|---|
| 41-43 | .052 |

**GULF COAST (domestic)*—**

| | |
|---|---|
| 41-43 | .035 |

*Barge price ⅛ cent lower.

## Furnace Oil

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| Range oil | .04 | .0425 |
| No. 1 white (38-42) | .03875 | .04125 |
| No. 1 straw (38-40) | .0350 | .03625 |
| No. 2 straw (32-36) | .0350 | .03625 |
| No. 3 zero to 10 (28-32) | .03375 | .0350 |

**NORTH TEXAS—**

| | | |
|---|---|---|
| No. 1 (white, 38-42) | .0375 | .03825 |
| No. 1 straw (38-40) | .03375 | .0350 |

**NORTH LOUISIANA (Ark. and N. La. delivery)—**

| | | |
|---|---|---|
| No. 2 (32-36) | .0325 | .03375 |

**ARKANSAS (Ark. and N. La. del.)—**

| | | |
|---|---|---|
| No. 2, 32-36 | .0325 | .03375 |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| Range oil | .04 | .0425 |
| No. 1 (white, 38-42) | .03825 | .04125 |
| No. 2 straw (32-36) | .035 | .03625 |
| No. 3 zero to 15 (28-32) | .03375 | .035 |

**NEW YORK (Bayonne, N. J.)—**

| | |
|---|---|
| *No. 1 | .052 |
| *No. 2 | .049 |
| *No. 3 | .049 |

*Barge deliveries ⅛ to ¼ cent under above tank-car price.

## Gas Oil and Fuel Oil
(Gas oil per gal., fuel oil per bbl.)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| No. 5, low pour point (18-22) | .95 | .90 |
| No. 6, 15 and above (10-16) | .85 | .90 |

**NORTH TEXAS—**

| | | |
|---|---|---|
| No. 5, low pour point (18-22) | .80 | .85 |
| No. 6, 15 and above (10-16) | .80 | .85 |

**NORTH LOUISIANA (Ark. and N. La. delivery)—**

| | | |
|---|---|---|
| 10-14 fuel oil, industrial | .80 | .85 |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| U.G.I. gas oil | .0325 | .035 |
| No. 5, low pour point (18-22) | .85 | .90 |
| No. 5, 15 and above (18-22) | .85 | .90 |
| No. 6, low pour point (10-16) | .85 | .90 |
| No. 6, 15 and above (10-16) | .85 | .90 |

**PENNSYLVANIA (inland refineries)—**

| | | |
|---|---|---|
| 36-40 | .0575 | .06 |

**CALIFORNIA—**

| | | |
|---|---|---|
| Los Angeles: | | |
| 30-40 gas oil, per bbl. | 1.10 | 1.25 |
| 24 plus diesel, per bbl. | 1.10 | 1.25 |
| 24 plus diesel (bunkers) | 1.20 | 1.35 |
| 12-16 bunkers at tidewater) | .75 | .85 |
| 10-16 (cargo lots) | .75 | .85 |
| 12-17 (tank cars) | .65 | .75 |
| 10-17 (high sulfur) | .55 | .65 |
| San Joaquin Valley: | | |
| 10-18 (tank cars) | .70 | .85 |
| 24 plus diesel, per bbl. | 1.10 | 1.25 |
| San Francisco: | | |
| 24 plus diesel, per bbl. | 1.35 | 1.40 |
| 24 plus diesel (bunkers) | 1.40 | 1.50 |
| 10-16 (bunkers) | .80 | .85 |

**GULF COAST—**

| | | |
|---|---|---|
| No. 2 fuel | .0325 | .035 |
| 43-47 diesel | .035 | .03375 |
| 48-52 diesel | .03375 | .03625 |
| 53-57 diesel | .035 | .03875 |
| 58-and-above diesel | .03625 | .0375 |
| Diesel bunkers | | 1.45 |
| Bunker C (bulk cargoes) | .85 | .90 |
| Bunker C (bunkers) | | .85 |

**NEW YORK (Bayonne, N. J.)—**

| | | |
|---|---|---|
| 27 plus, gas oil | | .050 |
| 28-30 diesel (lighterage 6¼c per. bbl.) | | 2.00 |
| 28-30 diesel (tank cars) | .049 | .05 |
| Bunker C (to ocean-going ships in N. Y. Harbor) | 1.35 | 1.50 |
| Industrial fuel (tank cars) | | .038 |

Ligtherage charge 5c bbl. additional.

## Bright and Steam Refined

**OKLAHOMA (Group 3)—**

| | |
|---|---|
| 200-210 D, 10-25 | .24 |
| 150-160 D, 0-10 | .20 |
| 150-160 D, 10-25 | .195 |
| 100-110 D, 0-10 | .195 |
| 100-110 D, 10-25 | .19 |
| Steam refined: | |
| 600 dark green (untreated) | .125 |

**PENNSYLVANIA—**

| | | |
|---|---|---|
| Bright Stocks (Pennsylvania Grade No. 8 color, 140-150 at 210, 545-550 flash): | | |
| 10 pour point | | .275 |
| 15 pour point | | .265 |
| 25 pour point | .24 | .25 |
| Steam refined: | | |
| 600 | .13 | .14 |
| 650 | .135 | .145 |
| 600 flash | .14 | .15 |
| 630 flash | .15 | .16 |

## Neutral Oil
(Vis. at 100° F. except Pennsylvania and color N.G.A.)

**OKLAHOMA (Group 3)—**

| | |
|---|---|
| 0-10 pour point: | |
| 150-3 | .115 |
| 180-3 | .12 |
| 200-3 | .12 |
| 250-3 | .135 |
| 280-3 | .145 |
| 280-4 | .14 |
| 300-3½ | .155 |
| 350-3½ | .16 |
| 400-3½ | .17 |
| 500-3½ | .175 |
| 600-3½ | .18 |
| 100-2½ paraffin oil 10-25 | .0675 |
| 10-25 pour point: | |
| 200-3 | .115 |
| 250-3 | .13 |
| 280-3 | .14 |
| 280-4 | .135 |

**CALIFORNIA (moving to dom. market)—**

| | | |
|---|---|---|
| Pale oils: | | |
| 200-2½-3 | .0725 | .08 |
| 300-2½-3 | .0725 | .08 |
| 400-3-4 | .0725 | .08 |
| 450-3-4 | .0725 | .08 |
| 550-3-4 | .09 | .11 |
| 600-3-4 | .09 | .11 |
| Red oils: | | |
| 200-4-5 | .0725 | .08 |
| 300-5-6 | .0725 | .08 |
| 350-5-6 | .0925 | .115 |
| 400-5-6 | .0925 | .115 |
| 450-5-6 | .0925 | .115 |
| 500-5-6 | .095 | .115 |
| 600-5-6½ | .0925 | .115 |
| 700-6½ plus | .0925 | .115 |
| 750-6½ plus | .0925 | .115 |
| 900-6½ plus | .0925 | .115 |

**GULF COAST—**

| | | |
|---|---|---|
| Pale oils: | | |
| 100-3 | .0525 | .0575 |
| 200-3 | .0725 | .0775 |
| 300-3 | .07¾ | .08¼ |
| 500-3½ | .08½ | .09 |
| 750-3½ | .08¾ | .09¼ |
| 1,200-3½ | .08⅞ | .09⅜ |
| 2,000-4 | .09 | .09½ |
| 3,000-4 | | .10½ |

**PENNSYLVANIA—**

| | | |
|---|---|---|
| 150 vis. at 70° F., 3 color, 400-405 flash: | | |
| Zero pour point | | .375 |
| 10 pour point | | .365 |
| 15 pour point | | .355 |
| 25 pour point | .30 | .36 |
| 200 vis., at 70° F., 3 color: | | |
| Zero pour point | | .39 |
| 10 pour point | | .38½ |
| 15 pour point | | .375 |
| 25 pour point | .32 | .38 |

## Wax and Petrolatum
(Prices per pound)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| 124-126 (A.m.p.) w.c. scale | .05 | .0525 |

**PENNSYLVANIA (inland refineries)—**

| | | |
|---|---|---|
| 122-124 (A.m.p.) w.c. scale | .05 | .055 |
| 124-126 (A.m.p.) w.c. scale | .05 | .0525 |

**NEW YORK—**

| | |
|---|---|
| Wax in bags fully refined: | |
| 125-127 (A.m.p.) wax | .0560 |
| 128-130 (A.m.p.) wax | .0560 |
| 130-132 (A.m.p.) wax | .0585 |
| 133-135 (A.m.p.) wax | .0615 |
| 135-137 (A.m.p.) wax | .0640 |
| Crude scale: | |
| 124-126 (A.m.p.) w.s. | .0425 .045 |
| 124-126 (A.m.p.) y.s. | .040 .0425 |
| Petrolatum in barrels, carload lots: | |
| Dark green | .02625 .03000 |
| Amber | .02875 .03125 |
| Extra amber | .02500 .02625 |
| Lily white | .04875 .05375 |
| Snow white | .05625 .06375 |
| Cream | .04000 .04375 |

## Export Prices

### GASOLINE

**GULF COAST—**

| | | |
|---|---|---|
| 60-62 400 | .05125 | .065 |
| 61-63 390 | .05625 | .0625 |
| 64-66 375 | .05625 | .0625 |

**LOS ANGELES—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| Above 69 octane | .0575 | .06 |
| 65-69 octane | .055 | .0575 |
| 60-65 octane | .0475 | .0525 |

### KEROSENE

**GULF COAST—**

| | | |
|---|---|---|
| 41-43 water white | .035 | .0375 |

**LOS ANGELES—**

| | | |
|---|---|---|
| 41-43 water white | .05 | .0525 |

### LUBRICANTS
(Pennsylvania Grade)

**NEW YORK (f.o.s. in bbl.)—**

| | | |
|---|---|---|
| Cylinder stocks: | | |
| 600 S.R. unfiltered | .18 | .20 |
| 630 S.R. unfiltered | .185 | .2025 |
| 600 flash, S.R. | .185 | .205 |
| 650 flash, S.R. | .20 | .21 |
| Bright stock: | | |
| Light, 25 pour point | .27 | .285 |

### NEUTRAL OIL

| | | |
|---|---|---|
| 200-3 color | .33 | .36 |
| 150-3 color | .31 | .34 |

### PARAFFIN WAX

**NEW YORK (prices per lb.)—**

| | | |
|---|---|---|
| 123-125 A.m.p. | | .0560 |
| 125-127 A.m.p. | | .0560 |
| 128-130 A.m.p. | | .0560 |
| 133-135 A.m.p. | | .0615 |
| 135-137 A.m.p. | | .0640 |
| Crude scale: | | |
| 124-126 w.s. | .05 | .0525 |
| 124-126 y.s. | .05 | .0525 |

# MARKET RECORD OF ACTIVE OIL STOCKS . . .

Compiled by Carl H. Pforzheimer & Co., 25 Broad Street, New York City, Member New York Stock Exchange and New York Curb Exchange

## New York Stock Exchange

| 1941 High | 1941 Low | Week ended July 19 High | Week ended July 19 Low | Week ended July 19 Close | Stocks— | Total shares outstanding | Par value | Latest dividend | Payable or last paid | Dividends paid in 1940 | Com. sh. earn. 1940 | Com. sh. earn. 1939 | 1940 High | 1940 Low | 1939 High | 1939 Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60½ | 44 | 60½ | 59 | 60 | Amerada Corp. | 788,675 | N.P. | 50cQ | 7-31-41 | $2.00 | $2.25 | $1.56 | 58½ | 38½ | 74½ | 50 |
| 24¼ | 19½ | 23⅝ | 22⅞ | 23⅝ | Atlantic Refining | 2,663,999 | $25 | 25cQ | 6-16-41 | 1.00 | 2.11 | 1.66 | 27⅛ | 18¼ | 24⅝ | 18⅛ |
| 10½ | 7 | 10 | 9⅛ | 9¼ | Barber Asphalt Co. | 390,223 | $10 | 25c | 5-21-40 | .50 | —.48 | 1.39 | 16⅝ | 8½ | 21 | 10¼ |
| 10¼ | 7⅝ | 10¼ | 9⅞ | 9⅞ | Barnsdall Oil Co. | 2,558,779 | $5 | 15c | 9-8-41 | .60 | .97 | .76 | 13⅜ | 7⅛ | 19½ | 11⅛ |
| 6½ | 5¼ | 6⅛ | 6 | 6 | Consolidated Oil Corp. | 13,751,726 | N.P. | 12½cQ | 8-15-41 | .72½ | .28 | .55 | 8⅛ | 5½ | 9⅜ | 6½ |
| 25½ | 17⅝ | 25½ | 24½ | 25½ | Continental Oil of Delaware | 4,682,572 | $5 | 25cQ | 9-29-41 | 1.00 | .92 | 1.35 | 25 | 16⅛ | 31½ | 19⅞ |
| 4¾ | 3½ | 4⅝ | 4½ | 4½ | Houston Oil | 1,098,618 | $25 | .... | 10-17-30 | .... | .30 | .43 | 6⅞ | 3⅜ | 9⅜ | 4½ |
| 12⅝ | 9⅝ | 12¾ | 12 | 12 | Lion Oil Refining | 435,815 | N.P. | 25cQ | 7-15-41 | 1.00 | 1.05 | 1.50 | 14⅜ | 9 | 18⅛ | 10 |
| 17⅜ | 13 | 17 | 16⅝ | 16⅞ | Mid-Continent Petroleum | 1,857,912 | $10 | 40c | 6-21-41 | .80 | 1.60 | 1.42 | 17⅜ | 11½ | 18 | 11⅛ |
| 12½ | 9⅜ | 12⅛ | 11⅞ | 12 | Mission Corporation | 1,378,645 | $10 | 25c | 12-20-40 | .25 | 1.01 | .87 | 11¾ | 7⅛ | 14⅞ | 8¾ |
| 7½ | 4¼ | 7⅜ | 6¾ | 6⅞ | National Supply | 1,155,517 | $10 | .... | 12-22-37 | .... | —.49 | —.87 | 9¾ | 4⅝ | 15½ | 5⅝ |
| 9¾ | 6¾ | 9⅝ | 9¼ | 9½ | Ohio Oil Co. | 6,563,377 | N.P. | 25c | 6-14-41 | .... | 1.02 | —.10 | 8¾ | 5⅜ | 10½ | 6 |
| 8⅛ | 5½ | 7⅞ | 7¾ | 7¾ | Pacific Western Oil | 1,000,000 | N.P. | 40c | 12-19-39 | .... | —.21 | .81 | 8⅞ | 5½ | 11⅞ | 7 |
| 10½ | 7¼ | .. | .. | .. | Pan American Pet. Trans. | 4,702,945 | $5 | 25c | 12-21-40 | .25 | 1.20 | 1.10 | 10½ | 6¾ | 8¾ | 5 |
| 45 | 35¾ | 44¼ | 42¾ | 44 | Phillips Petroleum | 4,449,052 | N.P. | 50cQ | 5-31-41 | 2.00 | 2.60 | 2.21 | 41¾ | 27⅛ | 46½ | 31¼ |
| 16⅞ | 14¼ | 16⅝ | 16⅛ | 16¼ | Plymouth Oil Co. | 1,038,633 | $5 | 30c | 6-30-41 | ‡1.30 | 1.38 | 2.38 | 22¾ | 15 | 24 | 17⅛ |
| 10⅜ | 7 | 10⅜ | 9¾ | 9¾ | Pure Oil Co. | 3,982,031 | N.P. | 25c | 12-20-40 | .25 | 1.21 | 1.11 | 11½ | 6¾ | 11⅜ | 6⅛ |
| 10½ | 7¼ | 9½ | 9¼ | 9⅜ | Richfield Oil Corp. | 4,010,000 | N.P. | 50c | 12-21-40 | .50 | .95 | .65 | 9¼ | 5⅞ | 10¼ | 6⅝ |
| 16½ | 12½ | 16¼ | 16 | 16 | Seaboard Oil of Delaware | 1,244,383 | N.P. | 25cQ | 6-15-41 | 1.00 | 1.05 | 1.40 | 20 | 11 | 24⅜ | 15½ |
| 15⅝ | 10⅛ | 15½ | 14⅝ | 15½ | Shell Union Oil | 13,070,625 | N.P. | 40c | 7-21-41 | .75 | 1.05 | .77 | 13⅛ | 7⅝ | 17¼ | 9⅞ |
| 30⅜ | 18⅞ | 30⅜ | 29⅝ | 29⅝ | Skelly Oil | 995,349 | $15 | 50c | 7-30-41 | 1.25 | 3.28 | 1.99 | 23¼ | 12¼ | 29½ | 15½ |
| 9⅞ | 8¼ | 9⅞ | 9½ | 9¾ | Socony-Vacuum | 31,206,071 | $15 | 25cSA | 3-15-41 | .50 | 1.17 | 1.10 | 12⅛ | 7⅛ | 15⅛ | 10¼ |
| 23¾ | 17⅞ | 23¾ | 23¼ | 23⅝ | Standard Oil of California | 13,003,953 | N.P. | 25cQ | 6-16-41 | 1.00 | 1.73 | 1.38 | 26⅛ | 16¼ | 33⅝ | 24¼ |
| 32⅝ | 25½ | 32⅝ | 31¾ | 32⅝ | Standard Oil (Indiana) | 15,272,020 | $25 | 25c | 6-16-41 | 1.50 | 2.20 | 2.23 | 29 | 20¾ | 30 | 33¾ |
| 44⅛ | 33 | 44 | 42⅛ | 43⅞ | Standard Oil of New Jersey | 27,280,998 | $25 | 1.00† | 6-16-41 | 1.75 | 4.54 | 3.26 | 46½ | 29⅞ | 53½ | 38 |
| 46 | 34¼ | 46 | 44⅞ | 45¼ | Standard Oil of Ohio | 753,740 | $25 | 37½c | 6-14-41 | 2.00 | 7.44 | 6.64 | 41¾ | 26¼ | 32¾ | 17 |
| 58¾ | 50 | 55½ | 54½ | 55½ | Sun Oil | 2,434,863 | N.P. | 25cQ | 6-16-41 | *1.00 | 3.03 | 2.74 | 65⅞ | 46¾ | 66 | 45¾ |
| 2⅝ | 1⅜ | 2¼ | 2 | 2⅛ | Superior Oil Corp. | 1,388,979 | $1 | 10c | 12-28-40 | .10 | .11 | .04 | 2½ | 1⅛ | 3⅝ | 1⅜ |
| 43⅝ | 34½ | 43⅜ | 41½ | 42⅜ | Texas Corp. | 10,876,139 | $25 | 50cQ | 7-1-41 | 2.00 | 2.90 | 3.02 | 47⅝ | 33 | 50⅜ | 32½ |
| 4⅛ | 2⅞ | 3¾ | 3⅝ | 3⅝ | Texas Gulf Producing Co. | 888,147 | N.P. | 10c | 6-14-41 | .20 | .63 | .69 | 4¼ | 2½ | 5⅜ | 3¼ |
| 6¾ | 5¼ | 6¾ | 6⅝ | 6¾ | Texas Pacific Coal & Oil | 888,236 | $10 | 10c | 6-2-41 | .40 | .54 | 1.00 | 8⅝ | 5⅜ | 11⅜ | 7 |
| 10¾ | 9⅜ | 10⅝ | 10¼ | 10½ | Tide Water Associated | 6,371,827 | $10 | 15c | 6-2-41 | .70 | 1.14 | 1.05 | 12 | 8¾ | 14¼ | 9½ |
| 14¾ | 12¾ | 14½ | 14 | 14½ | Union Oil Co. of California | 4,666,270 | $25 | 25c | 5-10-41 | 1.00 | .99 | 1.25 | 17½ | 12 | 19¾ | 15⅛ |
| 30⅞ | 25⅝ | 30 | 29¾ | 30 | Union Tank Car Co. | 1,177,381 | N.P. | 50c | 6-2-41 | 1.75 | 2.22 | 2.07 | 29⅞ | 22¾ | 24¼ | 20⅛ |
| 2⅜ | 1⅝ | 2⅛ | 2⅛ | 2⅛ | Wilcox Oil & Gas | 470,768 | $5 | 10c | 2-15-40 | .... | .35 | .77 | 3⅝ | 1¾ | 4¼ | 2⅜ |

*Also 5 per cent in stock. †Includes extras. ‡Also 2 per cent in stock. —Deficit.

## New York Curb Exchange

| 1941 High | 1941 Low | Week ended July 19 High | Week ended July 19 Low | Week ended July 19 Close | Stocks— | Total shares outstanding | Par value | Latest dividend | Payable or last paid | Dividends paid in 1940 | Com. sh. earn. 1940 | Com. sh. earn. 1939 | 1940 High | 1940 Low | 1939 High | 1939 Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ¾ | ¼ | ⅝ | 5/32 | ⅝ | American Maracaibo Co. | 1,778,415 | $1 | .... | .... | .... | —$0.05 | —$0.04 | ⅛ | ¼ | 1¼ | ½ |
| 7⅞ | 5⅛ | 7½ | 7¼ | 7⅜ | American Republics Corp. | 1,308,049 | $10 | 10c | 7-10-41 | .... | .78 | .14 | 10¾ | 4½ | 11¾ | 5½ |
| 1¾ | 1 | 1⅝ | 1½ | 1½ | Bridgeport Machine Co. | 263,700 | N.P. | $1.25 | 12-30-37 | .... | —.88 | —.95 | 3¼ | 1⅜ | 7¼ | 2½ |
| 44 | 36½ | 44 | .. | .. | Buckeye Pipe Line Co. | 200,000 | $50 | $1 | 9-15-41 | $4.00 | 5.09 | 3.13 | 43 | 28 | 34¾ | 26½ |
| 110¼ | 87 | 95 | .. | .. | Chesebrough Mfg. Co. | 120,000 | $25 | $1.50Q† | 6-23-41 | 6.00 | 6.33 | 7.87 | 117 | 95 | 130 | 108⅝ |
| 5⅛ | 3⅝ | 4⅝ | 4⅜ | 4½ | Cities Service (new) | 3,703,978 | $10 | .... | 6-1-32 | .... | 1.72 | .68 | 6¾ | 4 | 9¼ | 4¼ |
| 1⅝ | ⅝ | 1½ | 1¼ | 1⅜ | Cosden Petroleum | 465,332 | $1 | .... | .... | .... | .... | .... | 2½ | ⅝ | 2¼ | ½ |
| 18 | 12½ | 17¾ | 16¾ | 17¼ | Creole Petroleum | 6,974,356 | $5 | 50cSA† | 6-16-41 | 1.00 | .98 | 1.38 | 24¼ | 11⅝ | 28 | 16¾ |
| 8¼ | 3¾ | 8¼ | 8⅛ | 8⅛ | Darby Petroleum | 351,390 | $5 | 25c | 7-15-41 | .... | 1.12 | .03 | 4⅜ | 2⅞ | 7⅛ | 3⅝ |
| 1⅞ | 1 | 1⅞ | .. | .. | Derby Oil & Refining | 263,162 | N.P. | .. | .... | .... | .12 | —.37 | 2 | ¾ | 2⅝ | 1½ |
| 28¾ | 21¼ | .. | .. | .. | Eureka Pipe Line | 50,000 | $50 | 50c | 8-1-41 | 2.25 | —.49 | .63 | 31 | 20¼ | 23 | 15⅛ |
| 38¼ | 29 | 37½ | 36½ | 36⅝ | Gulf Oil Corp. | 9,076,202 | $25 | 25cQ | 7-1-41 | 1.25 | 2.44 | 1.69 | 39⅞ | 25⅛ | 45⅛ | 29¼ |
| 63 | 52¾ | 62 | 60½ | 62 | Humble Oil & Refining | 8,987,840 | N.P. | 37½c | 7-1-41 | 2.00 | 3.13 | 3.33 | 68 | 47⅛ | 71 | 42½ |
| 7 | 5¾ | 6⅝ | 6¼ | 6½ | Imperial Oil of Canada | 26,965,078 | N.P. | 25c | 6-2-41 | .62½ | .65 | .71 | 12⅜ | 5⅜ | 17 | 11⅜ |
| 5 | 2¾ | 4⅝ | .. | .. | Indiana Pipe Line | 300,000 | $7.50 | 20c | 11-15-40 | *2.80 | .09 | .33 | 7¾ | 3 | 7¼ | 5½ |
| 11 | 8⅞ | 9¾ | 9⅝ | 9¾ | International Petroleum | 14,324,088 | N.P. | 50c | 6-2-41 | 1.25 | .... | 1.19 | 10¾ | 8¼ | 27½ | 17 |
| 2⅝ | 1¾ | 2½ | .. | .. | Kirby Petroleum Co. | 500,000 | $1 | 10c | 3-15-41 | .... | .16 | .06 | 2¾ | 1⅝ | 3¾ | 2⅛ |
| 10⅛ | 8½ | 9 | .. | .. | Lone Star Gas | 5,518,347 | N.P. | 20c | 4-22-41 | .70 | 1.17 | .98 | 10¾ | 7⅝ | 10½ | 7⅛ |
| 5⅜ | 4⅛ | 5¼ | 5 | 5⅛ | Louisiana Land & Exp. | 2,966,762 | $1 | 10c | 6-16-41 | .35 | .29 | .22 | 6¼ | 3¾ | 7¾ | 4 |
| 10 | 9½ | .. | .. | .. | Margay Oil Corp. | 149,943 | N.P. | 25cQ | 4-10-41 | 1.00 | 1.02 | 1.52 | 17 | 9¼ | 17 | 14½ |
| 3⅝ | 2½ | 3⅝ | 3¼ | 3⅝ | Middle States Petroleum "A" | 291,970 | $1 | 37c | 1-31-41 | .63 | .31 | .37 | 4½ | 2¾ | 5¾ | 2¾ |
| 8 | 7 | 7½ | 7¼ | 7½ | Midwest Oil Co. | 998,474 | $10 | 45c | 6-16-41 | .90 | .88 | .99 | 8½ | 5½ | 8¾ | 6⅝ |
| 6⅛ | 5⅛ | 5½ | 5¼ | 5¼ | Mountain Producers | 1,593,584 | $10 | 30cSA | 6-16-41 | .60 | .58 | .70 | 6¼ | 4⅞ | 6 | 4⅞ |
| 12⅜ | 10⅜ | 11⅛ | 11 | 11⅛ | National Fuel Gas | 3,810,183 | N.P. | 25cQ | 7-15-41 | 1.00 | 1.12 | .95 | 13⅛ | 10 | 14 | 11¼ |
| 12⅞ | 10¼ | 12⅝ | 12¼ | 12⅝ | National Transit | 509,000 | $12.50 | 50c | 6-16-41 | 1.00 | 1.08 | .91 | 12½ | 8¾ | 9½ | 7¼ |
| 1¼ | 1 | 1¼ | .. | .. | New Mexico and Arizona | 1,000,000 | $1 | 1c | 12-1-37 | .... | .03 | .02 | 1¼ | ¾ | 1⅜ | 1 |
| 8¼ | 6⅝ | .. | .. | .. | New York Transit | 100,000 | $5 | 30c | 4-15-41 | .60 | .91 | .88 | 7¾ | 5¼ | 6 | 4 |
| 9¾ | 7¾ | 9¾ | 9¼ | 9¼ | Northern Pipe Line | 120,000 | $10 | 50c | 6-2-41 | .80 | .70 | .31 | 9⅞ | 6 | 7 | 4½ |
| 4 | 2⅝ | 4 | 3⅞ | 4 | Pantepec Oil | 2,856,872 | $1 | .... | .... | .... | .... | .... | 5½ | 2½ | 7⅝ | 4 |
| 2⅞ | 1 | 2¾ | 2½ | 2½ | Root Petroleum Co. | 336,045 | $1 | 25c | 2-1-37 | .... | .04 | .70 | 3¼ | 1 | 5 | 1¼ |
| 2⅝ | 2⅛ | 2½ | .. | .. | Ryan Consolidated | 298,931 | N.P. | 10c | 12-28-40 | .... | .43 | .16 | 3 | 1¼ | 3 | 1⅜ |
| 8 | 6½ | .. | .. | .. | Southern Pipe Line | 100,000 | $10 | 25c | 3-3-41 | .50 | .81 | .25 | 11¾ | 4¾ | 4⅞ | 3½ |
| 43 | 36⅛ | 43 | 41¼ | 41¼ | South Penn Oil | 1,000,000 | $25 | 37½c | 6-27-41 | 2.50 | 2.10 | 2.84 | 44 | 28 | 40½ | 26¾ |
| 30½ | 23 | .. | .. | .. | Southwest Penna. Pipe Lines | 35,000 | $50 | 50c | 7-1-41 | 6.50 | 3.22 | 2.06 | 35 | 21 | 23 | 18 |
| 20⅜ | 17⅞ | 19 | 18½ | 18¾ | Standard Oil of Kentucky | 2,604,790 | $10 | 25c | 6-16-41 | 1.30 | 1.47 | 1.53 | 20⅞ | 16½ | 20⅛ | 17¼ |
| 2 | 1¾ | 2 | 1¾ | 1⅞ | Sunray Oil | 1,975,876 | $1 | 5c | 12-20-40 | .10 | .23 | .25 | 2 | 1⅜ | 2⅜ | 1¾ |
| 3¼ | 2¾ | 3 | 2⅞ | 2⅞ | Texon Oil & Land | 936,024 | $2 | 10c | 6-28-41 | .40 | .45 | .49 | 3⅛ | 2 | 4 | 2⅝ |
| 3⅞ | 2¼ | 3⅞ | 3¾ | 3¾ | Transwestern Oil Co. | 750,000 | $10 | .... | ..... | .... | —.59 | —1.42 | 3⅜ | 2 | 6 | 2½ |
| ⅛ | ⅛ | ¾ | ⅝ | ⅝ | United Gas Corp. | 7,818,959 | $1 | .... | ..... | .... | —.49 | —.55 | 2⅛ | ⅝ | 3⅜ | 1⅛ |

*Includes $2.50 capital distribution. †Includes extras. —Deficit.

# EQUIPMENT PROGRESS...

## Special Buckeye Crane Boom Speeds Material Handling

A yard crane with a short gooseneck boom is now offered by the Buckeye Traction Ditcher Co., Findlay, Ohio, which provides greater stability under heavy

loads, facilitates car loading and unloading and working in close quarters. A gooseneck on the end of the boom provides handling of lengthy objects in confined space despite the short boom.

The Clipper gooseneck boom crane speeds unloading of flat cars and gondolas for stockpiling. Material can be stacked 20 ft. high or more with ease.

All operations in the work cycle of the crane such as swing, boom raising or lowering and load hoisting, are controlled by vacuum power which provides fast, smooth operation. Six small handles on a "desk type" control board are tilted to perform various operations. The vacuum-control system eliminates trouble from freezing in winter and condensation of moisture in summer so that it is ideal for outdoor use.

Other features of the Buckeye Clipper gooseneck crane include: 175 ft. per minute minimum hoist speed; welded steel box-type boom; safety power drum brakes; minimum of 5.25 r.p.m. full swing; quick convertibility to shovel, dragline or lifting magnet; travels, swings and hoists simultaneously; four antifriction bearing hook rollers; 43 antifriction bearings; power-boom hoist and safety brake; flame-hardened gears; "no chain" power hookup through gears and double universal joint, and other features.

Three models are available: Model 50, 5-ton; Model 60, 6½-ton; Model 70, 7-ton capacity.

## Burgess Announces New Conference Acousti-Booth

The Burgess Model 501 conference Acousti-Booth, for use in noisy plants where a quiet conference place is necessary, has just been announced by the Burgess Battery Co., Acoustic Division, 530 West Huron Street, Chicago. Similar in construction to the Burgess telephone Acousti-Booth, this new conference booth has walls of sound-absorbent construction to soak up factory noise.

It is designed to meet the need for a large "zone of quiet" for conferences in noisy factories, for use where several telephones may be installed in one location, and for testing operations such as listening for noise in electric motors. It may even be used as a temporary miniature office in new or remodeled factories where construction is not complete.

The doorless entrance at each end permits ready access to the booth and provides ample natural ventilation. Acoustic construction of the booth makes doors unnecessary. A folding table, 23½ in. by 24 in., and overhead electric light fixture add to its convenience. It is easily portable and can be assembled and ready for use in a few minutes time. Constructed of heavy gage steel and finished in black wrinkle finish on the exterior, with gray interior. Outside dimensions are 56½ in. long, 54½ in. wide, and 79½ in. high. Shipping weight 1,000 lb.

## New Man Cooler Announced by DeBothezat

A new man cooler, especially designed for reducing fatigue of workmen in foundries, forge shops and steel mills—workers who are exposed to radiant heat from ovens, furnaces, forges and molten metal—has just been announced by the DeBothezat Ventilating Equipment Division, American Machine & Metals, Inc., East Moline, Ill. Called the "Hy-V" air jet, the new man cooler is column mounted and adjustable to blow in any direction. It projects a blast of cooling air in a concentrated stream to remote spaces without the aid of ducts. A new folder describing the "Hy-V" air jet may be secured by writing to the DeBothezat.

## Continental Supply Co. Opens Three New Stores

The Continental Supply Co., Dallas, Tex., has opened supply stores at Jena, La., Imperial, Tex., and Sullivan City, Tex. Five Continental stores have recently been closed. These are the stores that were located at Freer, Big Spring and Breckenridge, Tex.; Monroe, La., and Centralia, Ill.

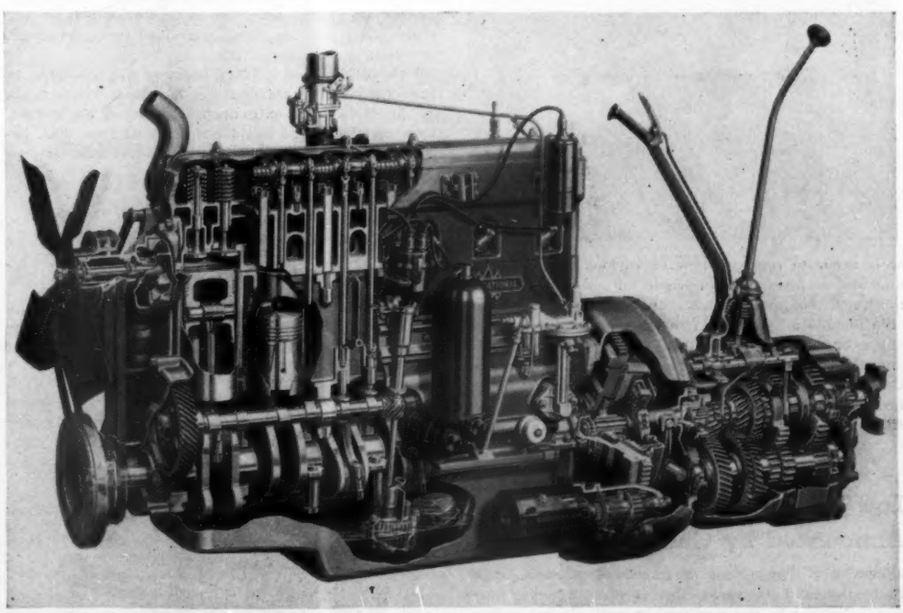
## Resin-Base Machinery Finishes

Machinery finishes must resist many conditions which cause paints and enamels to deteriorate, according to paint technicians of E. I. du Pont de Nemours & Co., Wilmington, Del. Contact with oil, grease, and other solvents; temperature variations from cold to intense heat, and abrasion tend to shorten the life of finishes. In certain industries frequent spillage and constant hosing-down cause failure of the paint film.

New synthetic resin-base machinery finishes possess greater durability than oil or varnish-type enamels. They are relatively unaffected by contact with petroleum oils or grease, and highly volatile thinners affect them but slightly. Dark-colored machinery finishes of this type retain their life and good looks despite intense heat. The flexibility of the finish renders it resistant to knocks and minimizes cracking or chipping.

## INTERNATIONAL PREPARES PERSPECTIVE VIEW OF ENGINE

International Harvester Co., Chicago, has prepared a sectional drawing in perspective of a heavy-duty valve-in-head truck engine (Model FBC—used in the new International truck Models K-8, K-10, and K-11) which so far as is known, is the first sectional view of its kind. As shown in the accompanying reproduction, all parts of the engine, clutch, and transmission are shown in their natural, three-dimensional form—just as they might be seen if some type of super X-ray, not yet invented, could make it possible to look through the side of the engine and into the inner parts.



Here is the way this drawing was made. First, the exterior of the engine, clutch and transmission were photographed. With the camera tripod firmly anchored to the floor, successive pictures were taken with the engine accessories removed, then with the engine-top cover removed, then with the cylinder head removed, and finally with the camshaft and crankshaft removed from the engine and placed immediately in front of the engine in the same positions that they occupied when the previous pictures were made. With these photographs the artist then laid out his drawing and completed it with the aid of a cutaway engine and more than 500 blue prints of the various engine parts.

## BREWSTER'S NEW LIGHT RIG INTRODUCES MANY UNIQUE FEATURES

Mobility and ease of transportation were first and foremost in the minds of the engineers when they designed this Brewster Model FP-60-W portable rig, now in production by the Brewster Co., Inc., of Shreveport, La.

The 45½-ft. derrick is completely galvanized, and is raised as a single unit complete with crown block, by the large quadrant gear and small pinion drive. Worm reducer used on quadrant drive serves as locking device for derrick at all times. The front opening of the derrick is 32½ ft. high. Removable all-welded side braces strengthen both front legs and add stability to the entire derrick. The raising mechanism serves as rear brace for the derrick. With these braces guy wires are unnecessary. The base of the derrick is 10 ft. square, thus allowing an unusually large floor for drilling operations.

The crown block employs four 22-in. steel sheaves mounted on tapered roller bearings, with a 3¾-in. diameter center pin of S.A.E. 4140 steel. A transmission with four speeds forward and one reverse gives the engine exceptional flexibility. Draw-works drum is floating type, mounted on a live drum shaft and driven through a Twin Disc friction clutch mounted between drum and bearing supports. Rotary drive is through another Twin Disc friction clutch mounted on the other end of live drum shaft.

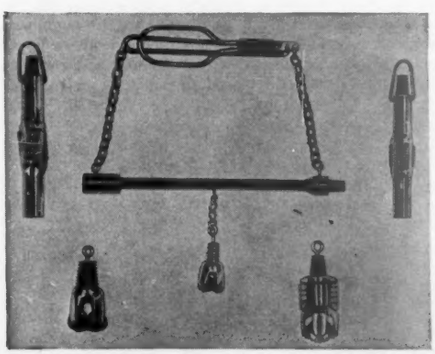
The rotary used is an oil-bath type of Brewster design. Machine-cut heat-treated ring and pinion gear. Roller bearings on pinion shaft. Full 12-in. table opening. Table bed and rotary base cast of electric steel.

If drilling conditions make it advantageous the entire unit can be mounted on caterpillar-type tracks with a fifth-wheel assembly at front equipped with tractor hitch, such as shown in the accompanying photographs. If necessary, the draw-works unit can be easily detached and used as a well-servicing unit.

A close-coupled combination hook-block is also made by Brewster for use with this rig or other similar portable rigs where derrick space is at a premium.

## New Miniature Working Models In Oil Men's Jewelry Line

A number of new items have lately been added to the miniature oil-tool jewelry line of J. B. Walker Co., 430 South Union Avenue, Los Angeles, Calif. For several years this manufacturer has been making nickel-finish and gold watch charms in the form of small-



scale accurate reproductions of various types of rock bits and reamers, with movable cutters and precisely machined tool-joint threads. Other novelties now available include a miniature fish-tail bit, tie clasps in the shape of drilling jars or drill pipe or square or hexagonal kellys, with bit or reamer pendant; also sport chains and, for the oil man's wife, buttonierres and necklaces with any desired bit or reamer attachment. Illustrated literature may be obtained from the manufacturer.

## Low-Voltage Oil-Immersed Starters Announced by General Electric

Two new low-voltage oil-immersed starters, especially designed to resist the corrosive fumes commonly present in chemical plants and refineries, have been announced by the General Electric Co., Schenectady, N. Y. Designated CR7008 and CR7006, these wall-mounted starters feature a heavy, corrosion-resisting, cast-iron head supporting the mechanism and oil tank. Stainless steel name plates and corrosion-resisting hardware further protect them against damage. The working parts are enclosed in a 3/32-in. steel tank.

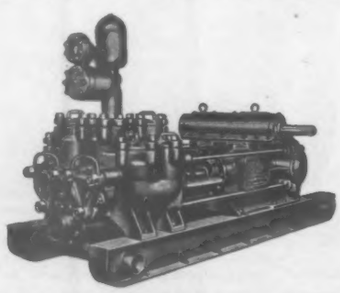
Special provision is made in the head for simplified installation. Conduit entrance is provided for on the top, bottom, rear, and sides of the starter, thus eliminating the necessity for right-angle fittings.

The Type CR7008 is a combination starter, combining in a single unit all the equipment necessary for controlling and protecting a motor. It includes a manually operated circuit breaker for short-circuit protection and disconnecting, and a magnetic starter for push-button control of the motor. The Type CR7006 is a magnetic starter similar to CR7008, except that it does not include the manual circuit breaker and its operating handle in the cover. It is recommended for use where other provision has been made for short-circuit protection and disconnecting.

Both CR7006 and CR7008 starters are available in types for use in hazardous-gas locations. These types are provided with extra-deep tanks, and all connections, terminals, and contact tips are at least 6 in. beneath the oil level. A bull's-eye oil-level gage is provided for inspection of the oil level.

## Wheland-Lucey Offers New Medium-Size Slush Pump

Wheland-Lucey now manufacture a medium-size duplex slush pump to provide operators with a fuller range of capacities and pressures for most efficient



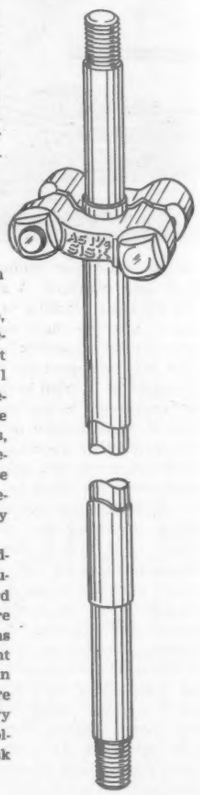
and economical drilling for average depth. This latest pump is the Wheland-Lucey HP—8,000, 7-in. by 12-in.

This pump is totally enclosed, providing automatic oil-bath splash lubrication for gears, connecting rods and cross heads. Valves are Wheland patented feather-edged, rubber sealed. Tie rods connect the power and fluid ends. Patented water cylinder head and liner packing assembly. Patented end-packed liners adjusted from outside the fluid end. Gears and pinions are tool steel, straight, spur tooth, hardened and ground. Stub and rods are fitted with mud baffles and connect with cross-head stub ends near the center of the cradle. Water ends can be replaced without removing power-end covers.

Pinion shaft complete with bearing assemblies can easily be turned end for end in the field without disturbing bearing adjustments, so that pump may be driven from either side. One-piece crankshaft mounted on Timken roller bearings. Forged steel pinion shaft mounted on Timken and American roller bearings. These pumps are handled in domestic fields by Lucey Products Corp., Tulsa, and for export by Lucey Export Corp., 3505 Woolworth Building, New York.

## Sisk Co. Offers New Kopper-Klad Polish Rods

The Kopper-Klad polish rod is an economical noncorrosive polish-rod assembly with 1⅛ o.d. jacket designed to replace standard common steel rods without change in stuffing-box equipment or packing rings. The self-lubricating valve and high heat conductivity of the highly noncorrosive jacket give stuffing-box rubbers greatly increased service life and additional freedom from burning out.



A special sealing clamp, made of a patented material, compresses the jacket for a metal-to-metal seal with the rod, effectively preventing leakage through the jacket without gaskets, threads, flanges, or other devices. The jacket may be spaced on the rod as desired, or as is required by the well's operation.

Rods are supplied in standard lengths with A.P.I. double pins or ⅞-in. standard when specified. Jackets are furnished in various lengths as required. Replacement jackets may be had when needed. Hi-Strength rods are available for extra heavy wells. The Kopper-Klad polish rod is made by the Sisk Co., Wichita Falls, Tex.

## TRADE LITERATURE

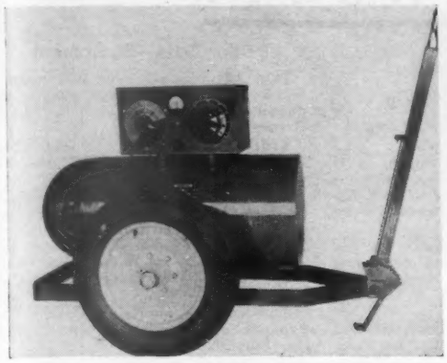
STAYNEW FILTER CORP.—44-page catalog, illustrating and describing the latest Staynew and Protectomotor filters for compressed air, gases, liquids, engine and compressor intake, and for building ventilation. The new catalog is replete with photographic illustrations, sectional drawings, diagrams, specification charts, and detailed engineering data.

JOSEPH T. RYERSON & SON, INC.—268-page steel buyer's guide listing new products, new analyses, and new sizes plus an increased number of helpful charts and tables. In addition to a complete listing of all Certified Steel products carried in stock by Ryerson, the book contains S.A.E. standard specifications, a physical-properties chart showing machinability of more than 50 steels, standard gage comparisons, weight tables, and other helpful data.

WAILES DOVE-HERMISTON CORP., Westfield, N. J. Bulletin 1040, general catalog containing information regarding the application of protective coatings for many unusual industrial conditions not covered by ordinary paints. The coatings described are divided into three general classifications: Hot-applied Bitumastic enamels, cold-applied Bitumastic coatings and industrial maintenance paints.

## Two-Wheeled Welding Machine Trailer Announced by Lincoln

A new two-wheeled light-weight pneumatic-tired trailer for mounting arc-welding machines for easy, fast portability in shop, yard or on the road, is announced by the Lincoln Electric Co., manufacturer of arc-welding equipment, Cleveland, Ohio.



Designed for mounting either Lincoln S.A.E. 200 to 600 amp. a.c. motor-driven or Type SA 200 special engine-driven Lincoln arc welders, the new unit (see illustration), can be used for road towing up to approximately 30 miles per hour or it can be hitched to a factory mule or industrial truck and is easily moved by hand by virtue of the low, underslung construction, narrow 31-in. tread and method of balancing. It is of arc-welded steel construction throughout.

Mounting is readily accomplished by means of four bolts in frame of trailer which register with holes in lugs on the welding machine. The combination tow-bar and standing support has a hand-operated ratchet arrangement for locking support arm in position. The unit measures 66 in. long, 42 in. wide, 16 in. high (over tires) and weighs 282 lb. Tires are 16-in. by 5.50-in., 4 ply.

## Hughes Ads Featuring Series On National-Defense Units

Hughes Tool Co., Houston, Tex., in this issue of The Oil and Gas Journal is running the first of a series of natural color advertisements featuring national-defense units. In the first series the various types of airplanes will be run, to be followed with a similar series of naval craft and motorized land units. The subject in this week's advertisement is one of the Army's newest type primary trainers—a sleek, low-wing monoplane. In the July 31 issue, a Navy scout and dive bomber designed for aircraft-carrier service will be featured.

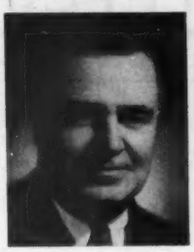
The management of the Hughes Tool Co. feels that the close relationship between the oil industry and the successful operations of airplanes, naval craft and motorized equipment makes the running of this series of advertisements both opportune and interesting. Reprints of all photographs shown in the advertisements, suitable for framing, will be furnished by Hughes Tool Co. upon request.

## Record Crowd at Axelson Picnic

Nearly 3,000 employes, their families and friends, attended the twelfth annual picnic of the Axelson Manufacturing Co.'s employes welfare association held July 12 at the Barney Oldfield picnic ground near Van Nuys, Calif. Under the direction of Alvin (Dutch) Zwerniman, general chairman, a fast-moving program of games and entertainment got under way by 9 a.m. and continued until nearly midnight.

## J. M. Bowlby Elected President Of Eagle-Picher Lead Co.

The Eagle-Picher Lead Co., Cincinnati, Ohio, has announced the election of J. M. Bowlby as its new president, to succeed Joseph Hummel, Jr. Mr. Hummel, who has been associated with Eagle-Picher for 50 years, had asked to be relieved of his active duties, and was elected to be chairman of the board.



*J. M. BOWLBY*

The new Eagle-Picher head is a native of Litchfield, Ill. He began his career with Railway Steel-Spring Co., now a division of American Locomotive Co. In 1921 he became associated with Barrow, Wade, Guthrie & Co., accountants and auditors, and has been a general partner of that firm since 1928. During the past 8 years Mr. Bowlby's activities have been largely directed to problems of industrial management. He will assume his new position at Eagle-Picher on September 1.

# AMONG EQUIPMENT MEN...

## T. B. Leech Joins Bethlehem As Refinery Sales Manager

The Bethlehem Supply Co. announces that T. B. (Tom) Leech has joined its staff as manager of refinery sales. Mr. Leech has been associated with the industry for some 25 years. After graduation from Muskogee High School in 1916 he attended Colorado School of Mines, alternating as a trainee at the West Tulsa plant of the Texas Co. during out-of-school periods.

Later he was with a group of affiliated companies doing pipe-line, production and refinery engineering in Texas, Oklahoma, and Kansas. For several years he was in charge of cracking-plant development and operations, and as plant engineer at the Kansas City Refining Co. at Kansas City, Kans. In 1926 he joined the Tulsa staff of the Southwestern Engineering Corp. as a sales engineer, specializing on fractionation. After having been Mid-Continent manager for Southwestern and, later, Alco Products, he went with the Alcorn Combustion Co. as process engineer.

Mr. Leech's headquarters with Bethlehem will be at its Houston, Tex., office, and he will supervise the sale of refinery materials throughout the company's entire operations.

## Los Angeles Nomads to Hold Outing

The annual golf tournament and barbecue of the Los Angeles, Calif., chapter of Nomads will be held this year on August 14. The golf tournament will be held at the Hacienda Country Club at LaHabra from 8:30 a.m. until 6 p.m. The barbecue will be held at the Shell Oil Co., Inc., barbecue pit at Brea, beginning at 6:30 p.m. Roy Hitchcock is chairman of the outing.

## Changes in South Chester Tube Co. Personnel

Edward J. McCann, formerly superintendent, has been appointed general works manager of South Chester Tube Co., Chester, Pa. Mr. McCann has been with this company for 21 years, starting as night superintendent. Previously he was with the Reading Iron Co., where he worked his way up from office boy to manager of the planning department.

W. C. Hale, formerly with the Gypsy division of Gulf Oil Corp., at Tulsa, and more recently in the sales department of South Chester Tube, has been appointed assistant to the general works manager.

## Grant Elected Vice President Of Houston Lighting & Power

Election of J. H. (Hank) Grant to vice president in charge of advertising and publicity, insurance matters and public and employe relations of the Houston Lighting & Power Co., Houston, Tex., was announced last week. Mr. Grant is the second vice president elected in recent months by Houston, Frank M. Austin having been named vice president in charge of the sales department and commercial activities this past March.

## BUSINESS NOTES

Greene, Tweed & Co., manufacturers of Palmetto and other brands of packings and special tools, has moved its manufacturing plants and general offices to the Palmetto Building at Bronx Boulevard and 238th Street, near Woodlawn in New York City. The new Greene, Tweed headquarters are located in a large modern plant, exceptionally attractive in appearance and practical in layout. Ample room is available for all departments and for increased manufacturing facilities.

The Sullivan Machinery Co., Michigan City, Ind., has announced the retirement on pension of Howard T. Walsh as of June 30, after 41 years of continuous service. Upon graduation from Worcester Polytechnic Institute, Mr. Walsh joined the company, serving successively as an apprentice in the company's training course, salesman in the Denver, Colo., territory, Pacific Coast manager, London manager, general sales manager, vice president and director.

Philip N. Cooke, sales manager of Norton Co. of Canada, Ltd., Hamilton, Ont., has been appointed resident manager, succeeding Robert C. Douglas, who died May 29. Mr. Cooke has been with the Canadian plant from its beginning, having left Worcester in June 1920 as one of the original Canadian-Norton organization. D. M. Chisholm of the Canadian sales organization succeeds Mr. Cooke as sales manager.

The McJunkin Supply Co. of Charleston, W. Va., has been appointed distributor of Bucyrus-Erie oil-well spudders for the West Virginia-eastern Kentucky territory. Main offices of the McJunkin company are located in Charleston, with stores at Grantsville and Hamlin, W. Va., and Allen, Ky.

J. R. Moser, research engineer, of the well pump division, Vickers, Inc., 1400 Oakman Boulevard, Detroit, Mich., has just completed a 3 weeks' trip through the oil fields where he has been studying the operation of their hydraulic pumping units, which are now being offered to the trade. Mr. Moser was accompanied by Mr. Houser, Mid-Continent representative.

John R. Riley and G. C. (Red) Ross, formerly of the American Iron & Machine Works Co., and well known in the oil industry throughout the Mid-Continent and Gulf Coast areas, have purchased the Brauer Machine & Supply Co. shop at Clay City, Ill., and have started operations under the name of Big Four Machine & Supply Co. This new company solicits general oil-field repair work in conjunction with its distributorship of many popular lines of equipment.

The Foxboro Co., maker of industrial instruments, announces that Paul T. Graff has joined its staff as a sales engineer, specializing in the promotion of the company's control instrumentation. He will be located at the company's main office at Foxboro, Mass.

# CLASSIFIED ADVERTISING

## THE MARKET PLACE OF THE OIL INDUSTRY . . .

### Patent Attorneys

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### Leases and Drilling Blocks

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**Texas, New Mexico, Oklahoma, Louisiana and Illinois**
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**Inquiries Invited**

**B. D. BUCKLEY**
**Paul Brown Bldg., St. Louis, Mo.**

### Leases and Drilling Blocks

LEASES—East Texas, La., South Ark. 20 acres up, dollar acre up.—Owners—Address Attorney, Box 1122, Little Rock, Ark.

FOUR THOUSAND ACRE (4000) BLOCK
Rapides Parish, Louisiana
Open for Quick Deal
Box A-584, The Oil and Gas Journal
Tulsa, Okla.

### OIL LANDS

For mineral lease or leases, approximately 35,000 acres, divided into blocks of less than 5,000 acres each, extending South from Sec. 14, Township 21 South, Range 22 East, to the Gulf of Mexico, and East of Cammada Bay, situated in the Parish of Lafourche or Jefferson, State of Louisiana.

Specifications including detailed descriptions of lands may be obtained from the undersigned.

Sealed bids will be received at the office of the Mayor of New Orleans, Louisiana, on or before the 12th day of August, 1941.

**EDWARD WISNER DONATION ADVISORY COMMITTEE**
**FRED W. MATTHEWS, Secretary-Treasurer**
**c/o CHARITY HOSPITAL, New Orleans, La.**

EAST TEXAS Woodbine—Trinity sand wildcats starting on Major Company blocks offer quick play 10 to 50 for one bets. E. CROFT, PROCTOR, TEXAS.

FOR SALE: Oil and gas leases and small production located in Kentucky shallow field, also tracts of proven Fluorspar and zinc deposits. Reports on request. W. P. HARLEY, Bowling Green, Kentucky.

M E N X E I W C O — State Oil & Gas Leases and Landowner's Royalties — Harry S. Wright, Farmington, N. M. M E N X E I W C O

FOR SALE: 10 acres Johnston Co., Okla. NW¼ of NW¼ of SE¼, Sec. 19, Twp. 2S, Range 8 East. Barry, 3505 Legation St., NW, Washington, D. C.

FOR LEASE 10,250 Acres of Oil and Gas Rights Well Located for Oil and Gas in Breathitt and Perry Counties, Kentucky. For Information Write Alan Germer, Box 264, Hazard, Kentucky.

DRILLING block 2500 acres, Farm out proposition, North of McLouth field, N.E. Jefferson County, Kans. on high structural uplift. Harry Haynes, Grantville, Kansas.

ONE-FOURTH participating mineral interest under 75½ acres, Humble block, Shelby County, Texas, $10 per acre. C. A. Parker, Box 451, Center, Texas.

FORCED SALE: New 10-year, 60-acre lease, Shelby County, surrounded by major company holdings, close up to two producing wells and two new deep tests to go down. Must sell. Price, $3 per acre. C. A. Parker, Box 451, Center, Texas.

U. S. OIL RESERVE lands can be filed for lease on limited acreage by American Citizens. Want several join me in filing block in developing Rocky Mountain Area. Big opportunity. Small expense. Box A-346, The Oil and Gas Journal, Tulsa, Okla.

CASH paid for producing gas or oil wells anywhere. Old wells considered. Will help drill proven leases. G. Gibbs, 7700 Geary, San Francisco, Cal.

HAVE a block of leases in Southwestern Oklahoma open for deal with parties that qualify able to drill well for equitable division of acreage. Good Geology. Write if interested. Philo Dempsey, Roosevelt, Okla.

NEW MEXICO
Oil and Gas Leases and Royalties.
ROY G. BARTON, Hobbs, N. M.

### Sales Agencies Wanted

SALES representation for Eastern section on equipment used petroleum refining by engineer located New York. Long established relations prominent refiners. Products of recognized standing requiring engineering application considered only. Box A-580, The Oil and Gas Journal, Tulsa, Okla.

### Geophysical Service

LET US LOCATE your well with the Gravitational Selector, the answer to the safe development of new pools. It is the quickest, the surest, the cheapest and gets RESULTS when other systems fail. Write Geologist, 14957 Lakewood Heights Boulevard, Lakewood, Ohio.

### Royalties

ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma

OUR READY MARKETS Enable us to pay cash for producing royalty acreage, lots, units and oil payments. GLOBE SECURITIES CO., LTD., Registered Bonded Dealers, Oklahoma City, Okla.

MAPS, information, valuations, well reports, etc., on royalties and producing properties, Texas and New Mexico. ROYALTY OWNERS SERVICE, P. O. Box 1535, Fort Worth, Texas.

WE BUY & SELL all types of Oil and Gas Royalties. Sales restricted to registered dealers only. Grimes Royalty Co., Tulsa Loan Bldg., Tulsa, Okla.

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**FIRST DEPENDABLE OIL CORP.**
**522 Fifth Ave., New York, N. Y.**

### Mailing Lists

ROYALTY owners, Oil investors, Unit holders, Stockholders, Operating personnel of oil industry. Oil Industry Mailing List Co., Tulsa Loan Bldg., Tulsa, Okla.

### Ranches—Farm Lands

FARMS—RANCHES — All sizes — All price ranges—OKLAHOMA—NEW MEXICO—COLORADO and TEXAS. Write for booklet containing full descriptions, prices and terms. Indicate whether you want farm or ranch. J. C. MYTINGER REALTY COMPANY, Box 1190, Wichita Falls, Texas.

### Legal Blanks

BURKHART'S legal blanks and general forms serving Mid-Cont. oil field since 1908—Okla. Kans. N. Mex. Tex. Ala. Ark. Fla. Ga. Ill. Ind. Ky. La. Mich. Miss. Mo. Neb. N. Dak. Tenn. Wyo. Free catalog samples on request. Burkhart Ptg. & Sta. Co., 115 S. Cinn., Tulsa, Oklahoma.

### Geologic Survey

GEOLOGICAL Survey bulletins listed by states. Send for lists. For sale by J. C. Howgate Bookseller, 120 So. Church, Schenectady, N. Y.

### Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

### For Sale—Equipment

FOR SALE at Seminole Warehouse—2" and 4" Fig. 505 Centrifugal Pumps, unrepaired. $5.00 and $10.00 each. I.T.I.O., Bartlesville, Okla.

FOR SALE: Two 1000 bbl. welded tanks; excellent condition. Harold Parks, Long Beach, Calif., 434-63.

FOR SALE — STREAMLINE WILSON GIANT POWER RIG, Used very little, complete with 5,000' full hole drill pipe, 27½ oil bath Union Tool rotary table, 200 H.P. Waukesha motors, 122' derrick —everything latest type. Address Box 239, Abilene, Texas.

FOR SALE: 6—40 Gallon Foam Outdoor Type Mounted Fire Extinguishers. I.T.I.O. Co., Bartlesville, Okla.

FOR SALE: Gas Meters. Orifice and Positive. George R. Milner, Box 457, Okmulgee, Oklahoma.

FOR SALE at Seminole Warehouse: 20 H.P. Bessemer Gas Engines as is—$75.00 each. I.T.I.O., Bartlesville, Okla.

FOR SALE: Heavy standard string of tools 18" down, located at Sapulpa, Okla. E. E. Abel, 1310 McCloud, Sapulpa, Okla.

1 — PARKERSBURG SC-11 Pumping Unit, Stroke Range from 60" to 32" with motor, V-rope drive, in strictly first class condition. JOS. GREENSPON'S SON PIPE CORP., NAT'L. STOCK YARDS, ST. CLAIR CO., ILL.

FOR SALE: 5000' 3" standard line pipe, plain end, 35' lengths, number one. Price 20c. 5000' 3½" o.d. 35' lengths flue line number one. Price 15c. M. J. Regan, Coffeyville, Kans.

FOR SALE—LATE TYPE OIL WELL STEAM SUPER-HEATER GENERATOR POWER RIG, Complete with 6,000' drill pipe full hole, 7¾ x 18 Wilson-Snyder power pump, 27½ oil bath Union Tool table, 122' derrick—everything latest type. A-1 condition. Address Box 239, Abilene Texas.

FOR SALE at Seminole—One Allis-Chalmers Model "U-E" Tractor Pulling Unit. I.T.I.O., Bartlesville, Okla.

**TANK TRUCKS**

Hendrickson Diesel Train, 6 wheeler, 6300 Gallons, Diamond T, 6 wheeler, 3000 gallons. Freuhauf semi-trailer, 3000 gallons.

**NATIONAL TRUCK SALES, INC.**
**3393 Archer Ave. Chicago, Ill.**

FOR SALE by owner: Complete all steel Standard Cable tool rig. Bits 6 to 15 in. Excellent string fishing tools, 5500 ft. practically new drilling and sand lines. Located in Nassau County, Florida. List furnished on application. J. Eugene Brown, Aragon Hotel, Jacksonville, Fla.

**COMPLETE**
**CORE DRILLING UNIT**

Formerly owned and operated by Seismograph Service, Tulsa. 31' mast, 75 r.p.m., 900# w.p., 4½ x 4-3½ x 3 Gardner-Denver pump, mounted on 1940 Model AC 403 G.M.C. truck, 2-speed Eaton rear axle. 500 ft. 2⅝" drill rod with 3" figd. couplings. 15 drill bits. Now located Falls City, Nebraska.

**SONKEN-GALAMBA SUPPLY CO.**
**Tulsa, Oklahoma**

FOR SALE at Oklahoma City: A quantity of repaired and unrepaired duplex piston steam pumps, 6 x 4 x 6 and 10 x 3½ or 4½ x 10. I.T.I.O. Co., Bartlesville, Okla.

## CLASSIFIED ADVERTISING RATES

Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line, PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White-space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgment is made, and proofs cannot be shown in advance of publication.

| | 1 time | 2 times | 3 times | 4 times | | 1 time | 2 times | 3 times | 4 times |
|---|---|---|---|---|---|---|---|---|---|
| 3 Lines | $1.05 | $1.80 | $2.55 | $3.30 | 7 Lines | $2.45 | $4.20 | $5.95 | $7.70 |
| 4 Lines | 1.40 | 2.40 | 3.40 | 4.40 | 8 Lines | 2.80 | 4.80 | 6.80 | 8.80 |
| 5 Lines | 1.75 | 3.00 | 4.25 | 5.50 | 9 Lines | 3.15 | 5.40 | 7.65 | 9.90 |
| 6 Lines | 2.10 | 3.60 | 5.10 | 6.60 | 10 Lines | 3.50 | 6.00 | 8.50 | 11.00 |

## CLASSIFIED DISPLAY RATES

Classified Display is set with a border and may be used in one or two column sizes.

| | | |
|---|---|---|
| 1 Inch | 1 time | $5.00 |
| 1 Inch | 13 times | 4.50 per inch |
| 1 Inch | 26 times | 4.00 per inch |
| 1 Inch | 52 times | 3.50 per inch |

This space may be contracted for over a period of one year from the date of the first insertion and is PAYABLE IN ADVANCE, MONTHLY.

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

**THE OIL AND GAS JOURNAL**
**Tulsa, Oklahoma**